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Decentralization--TAPPI's Remedy for Growing Pains

AT the Gearhart, Ore., convention, Mr. Macdonald's speech, reported in detail elsewhere in this issue, emphasized a well-known fact—TAPPI is experiencing "growing pains."

Our ears might have colored up a bit when he said the 1946 TAPPI convention in New York was criticized by a publication which "felt there were too many papers presented and that many were below standard."

In our March issue, we did report that the "consensus was that the general standard was a little below average" but there were "brilliant treatments of important subjects." We also said "Nobody had any fault to find with the performance of the staff headed by R. G. Macdonald." We reported that there was heavy pressure of time on the program; that technical men found meetings being held simultaneously in which they were interested; that one TAPPI chairman felt a "sense of frustration" because he couldn't contact men he wished to see.

Mr. Macdonald said he felt our report was "not constructive" because it did not suggest a remedy. But in that March article, page 23, we said:

"One thing is certain: this year's big national meeting brings to point more forcibly than ever the tremendous importance of the regional and sectional gatherings."

Mr. Macdonald indicated he and his associates felt the same way about it, when he announced at Gearhart that TAPPI will hold three specialized Fall meetings this year—in Detroit in late September and in Milwaukee and New Orleans in October. And so, we are happy to note, there seems to be agreement, rather than any conflict, on the proper remedy.

TAPPI's Publications Policy

AS another evidence of TAPPI "growing pains," Mr. Macdonald told his Gearhart audience that his organization is in the process of overhauling its publications policy.

Instead of publishing TAPPI papers, as at present, in a commercial publication, one group favors a high grade scientific TAPPI journal devoted to research and carrying no advertising. The other group would have TAPPI publish its own monthly or quarterly journal devoted to meeting papers and contributed articles.

The TAPPI committee which will make a recommendation is headed by Forest Brainerd of Scott Paper Co., and Mr. Macdonald urged TAPPI members to express their desires in the matter. We may be affected indirectly by any decision, so perhaps Mr. Brainerd's committee will permit us to toss in our "two cents' worth," too.

We have observed that most leading professional and scientific societies have no "link" with commercial publications. TAPPI already is publishing its technical papers in its own annual volume and these papers are available to members. This does the job in the orthodox manner—the way most societies of high repute do it.

As for publishing papers in magazines, it has been demonstrated that it is impossible for one selected magazine to publish all papers given at a National Convention, without stringing them out through issues for a year or longer.

Where it is the practice for an industry's technical papers to stand on their merits, in a wide open field, as far as periodical publication is concerned, the most important and worthwhile papers usually are published with a minimum of delay.

Concerning Our Cover Picture and This One — —

Our cover picture this month might be entitled "A Tree Is Born" or "Timber Is A Crop" to borrow a phrase one of the big pulp and timber companies has drummed into minds of many thousands of persons.

We are indebted for the cover picture to C. R. Lockhard, chief of the Forest Utilization Service, Southern Forest Experiment Station, U. S. Forest Service, New Orleans, La. Mr. Lockhard took the picture himself. It shows a one-year old Short Leaf Pine seedling on timberlands in Arkansas.

Below is another photograph, equally graphic in its message and dramatic in its import, showing how seed trees are left on the crowns of ridges and hills on the Pacific Coast. This picture was taken in selectively clear-cut Douglas Fir stands of St. Paul & Tacoma Lumber Co. The area is close to Mt. Rainier National Park in the western foothills of the Cascade range.

The two pictures—the one on the cover and this one below—

illustrate how trees, like all other life, grow from seed, live through the customary inevitable stages of growth and decline. We have learned that when the decline period sets in, any further growth will be negligible and slow and the tree should then be cut, before it dies and rots, to make room for new, faster growth.

We have also learned that in some areas it is well to plant seedlings, but in others, seed trees left standing in strategic locations, as shown in the lower picture, will do the job better and more cheaply by spreading its own seed.

Pacific Coast pulp mills are going to be big users of fast growing second growth Douglas fir—a species which until recently was regarded as exclusively a lumber or plywood species, but new and improved pulping processes have made it a desirable pulpwood to balance hemlock supply.

St. Paul & Tacoma Lumber Co. is a pioneer on the Pacific Coast in the new "closer wood utilization" program of that area.



**New Timber Crop
Is Assured Here**

Superintendents Elect Latimer Prexy; It's Chicago in '47; West or South in '48

With 900-1,000 superintendents and other mill executives, equipment and supply men and their women folk gathered in festive array in Poland Spring House in Poland Springs, Me., for the Superintendents' Association's national convention, as this issue went to press, a friendly but, nevertheless, lively controversy was warming up in some of the upstairs rooms as to whether the 1948 convention should go to the Deep South or the Pacific Coast in 1948.

With Homer H. Latimer, mill manager for Champion Paper & Fibre Co., moving into the presidency at Poland Springs for the forthcoming year (succeeding Raymond L. Barton of Michigan Paper Co. of Plainwell), there was virtually no question but that the 1947 convention would be in Chicago, perhaps again at the Edgewater Beach hotel on the North Shore—or at least in the Chicago area.

But for 1949, the convention-winning campaign potions already were being brewed. At least a tentative decision by the trustees at Poland Springs was a possibility.

The Southern superintendents felt they could put on a meeting in the grand old French-Creole city of New Orleans that would be sweet in the memories of those attending for the rest of their lives.

The Pacific Coast superintendents—both Canadian and American—were just as positive that they could make history with a meeting in the wild and rugged west, and sentiment seemed strongest for the majestically-situated little city of Vancouver, B. C.

The Superintendents have never held a meeting on the Pacific Coast, although TAPPI went there twice—once to Portland, Ore., and once to Seattle. It might be said that the Superintendents have really never had a meeting in the South, although some years ago it staged an annual meeting in Washington, D. C. (That's the South—sir, if you're talking to a Southerner, and he has good reasons for his point of view).

Hotels like the Roosevelt, Jung and others could team up to handle the crowd, perhaps, in the way they are going to do next October for TAPPI. The French Quarters offers plenty of picturesque sightseeing, famous restaurants and entertainment.

See Page 36 for Picture Of the New President

The magnificent Vancouver hotel was one of the aces in the deck of the boosters for that city, which lies like a jewel below snow-capped mountains and in the heart of a hunting, fishing and boating paradise.

Southern Superintendents were already campaigning for the 1948 event, with a mail poll being taken. But the Pacific Coast campaign was just in the talking stage.

Charley Ackley of Crown Zellerbach Corp., went east to Poland Springs with a fairly good report on the sentiment in the Pacific

Coast Division, which is the second largest division in the association (after the N.Y.-Canadian). It was slated to have the national convention in 1944—but World War II wiped that off the program and for that reason many westerners thought they should have an "option" on 1948.

Norman U. Dickson, of National Container Corp., Jacksonville, Fla., who heads the Southern Division, and Leonard Growdon, of The Mead Corp., Lynchburg, Va., who leads the Southeastern Division, outnumbered Mr. Ackley 2-to-1 in pulling for New Orleans, as those two divisions had already joined forces with a somewhat more organized campaign for their city.

U. S. OVERSEAS PULP IMPORTS

Grade:	1946			1945		
	(Jan. 4 thru May 16)			(from first postwar shipment June 25 thru Jan. 3, 1946)		
	From Sweden	From Finland	Total	From Sweden	From Finland	Total
Total (inc. some unclassified).....	177,791	25,946	203,737	672,080	10,871	682,951
Groundwood	5,991	.....	5,991	27,933	.....	27,933
Unbleached sulfite	60,520	8,929	69,449	283,959	.....	.....
Rayon or special sulfite	5,699	.....	5,699	3,440	4,980	345,435
Other bleached sulfite.....	8,087	2,846	10,933	53,056	.....	.....
Unbleached sulfate	94,688	14,171	108,859	274,429	5,891	308,390
Bleached sulfate	2,806	.....	2,806	28,070	.....	.....

Sources: U. S. Dept. of Commerce; Svensk Pappers Tidning; Finnish Paper & Timber Journal. (See 1946 NORTH AMERICAN REVIEW NUMBER OF PULP & PAPER INDUSTRY, pages 104, 106, 108, for further data on pulp imports from overseas during past 15 years).

Little Swedish Pulp Lands Outside Northwest

With the resumption of overseas pulp shipments to U. S. paper mills, Department of Commerce data for nine weeks prior to May 16 shows that virtually all imports have arrived in ports of Northeastern states.

In that period only two tons arrived in Los Angeles (this was groundwood, from Sweden), and only 3,911 tons arrived in Virginia (rayon sulfite, also from Sweden). All the rest was landed at ports from Baltimore northeastward.

Total delivered shipments for 1946 up to May 16 totaled 203,737 tons, valued at \$12,738,915.

Mead Corp. Expansion

Mead Corp. will spend between \$4,000,000 and \$5,000,000 on development of its Chillicothe, Ohio, plant, according to Chairman George R. Mead.

Changes in the Chillicothe plant cover improvement and complete modernization of paper machines and consolidation of two pulp mills into one large unit.

The proposed development is part of a \$15,000,000 expansion program for all its plants.

Ray Simeral Dies After Short Illness

Raymond W. Simeral, vice president and general manager of Fir-Tex Insulating Board Co., died June 2 in St. Helens, Ore., after a three-day illness. Mr. Simeral, who was 63, had been mayor of St. Helens since 1933.

He frequently attended pulp and paper mill Superintendents and TAPPI meetings and he appeared in good health at the Gearhart, Ore., convention which he attended in mid-May.

A native of Turner, Ore., he was Oregon state engineer in 1903 and for a number of years was engineering executive for electric companies. He joined the old Crown Willamette Paper Co. as chief engineer at the Camas, Wash., mill in 1926 and four years later went with Fir-Tex as chief engineer, when that new fiber product was put on the market. He became general manager in 1933.

Ground Broken

Ground was broken in Macon, Ga., on May 20 for the new \$4,000,000 wallboard plant of the Armstrong Cork Co. The first spadeful of earth was turned by H. W. Prentiss, Jr., company president.

HISTORIC GOULD PAPER CO. MODERNIZES PLANT AND METHODS

"You can't do today's job with yesterday's equipment, and expect to stay in business tomorrow," declares R. W. Shaver, vice president and general manager of Gould Paper Co. And he is proving the strength of his conviction.

A sweeping rehabilitation program at the Gould Paper Co.'s Lyons Falls, N. Y., plant has been announced by Mr. Shaver. The Northern New York mill, which was purchased late last year by the Continental Can Corp. is a foremost producer of groundwood specialties and sulfite papers including top quality printing, book and converting papers. It is one of the former U. S. newsprint mills which are now in the higher grades.

The program, which is designed to make the mill one of the most modern in the industry, includes new building construction, installation of new equipment, and modernization of existing facilities. Located at the junction of the Moose and Black Rivers, the mill has ample power potential to meet all the requirements of increased and intensified production.

Construction of a new steel and concrete building, designed to house paper machines and provide ample office space is under way, with contractors now laying the deep bed foundations. The present structure will be razed as construction progresses. A new 30'x78' two story brick and concrete bleach plant building has been completed, and equipment layouts are being given final study by the engineering department, headed by Donald R. Simonds.

All existing structures have been equipped with fluorescent lighting along with additional modernization. New shower rooms, equipped with individual lockers for each employee have been built. The accompanying picture shows the clean, modern equipment which is in constant use.

Equipment improvements include complete rehabilitation of the 54" chipper, installation of two new 60" Simonds saws, and the following machinery which is being supplied by the Improved Paper Machinery Co.: Two consistency regulators, one thickener for the sulfite mill, and stock metering equipment. In addition, this manufacturer is also supplying the mill with ten 10 and 12 plate flat screens and six groundwood deckers.

New water purification equipment will include a new mill fresh water supply and clear well. Delivery of new Warren pumps is expected soon, along with the filters, which are being supplied by Impco. Bids are currently out on other items for this part of the improvement program.

Stebbins Engineering Co. has built a new 9,000 gallon acid settling tank, which will be installed shortly. Engineering has been completed on a modern steam plant which will provide 1500 kilowatts of power generated by dual 450 lb. steam boilers, bids for which are now out.

Bagley-Sewall Machines Improved

Three Bagley and Sewall Fourdrinier machines are being renovated by the engineering department in conjunction with the manufacturer. These machines, 138", 102", and 92" will be improved to increase both quantity and quality of the sheet. (The mill used to make over 30,000 tons of newsprint annually.)

One 1500 pound Dilts Machine Works beater is being added to the four already in operation, along with two E. D. Jones short-plug, high speed jordan, and one new disc type refiner.

Quotations are being received on new machine room heating and vent machinery.

In addition to the mill, the Continental Can Corp. acquired 133,000 acres of woodlands, including more than one and a half townships of virgin spruce. Cut wood delivery to the mill is effected by river drive and company owned trucks.

Employee-Public Relations

The extensive program is not limited to physical plant improvement alone. A far-reaching, progressive program of employee and community relations, strongly emphasizing the organization's keen sense of community responsibility, is in the process of study and development.

Planning and execution are the responsibility of Charles A. Adams, director of personnel and public relations, whose work in both fields has been outstanding for years.

Extensive surveys, conducted by research specialists have shown that one of the primary needs in the area is that of adequate housing.

In this connection, Gould Paper's executives are working closely with civic groups, federal agencies, and local officials. An independent corporation is being organized to construct medium cost homes, which could be sold to the employees on monthly installments approximating the average rent cost in the area. Material shortages and other current problems, plaguing the country as a whole, have obstructed completion of the plan. The management feels confident, however, that these problems will be overcome eventually, and points to the fact that of its 225 employees, over 80 are veterans of World War II, desperately in need of adequate living quarters.

The program is largely in the hands of local citizens, who have given it wholehearted support. The Gould Co., according to Mr. Shaver, will limit itself mainly to assisting the local groups wherever possible, and will make any of its facilities available, wherever practical.

Working closely with the board of education, the village board, the American Legion, and other civic groups, the management is working on a plan of community activity as part of the company's intent to assume its share of community responsibility.

In the field of employee relations, the betterment of working conditions, improvement of safety measures, and provisions for off-duty recreation have been paramount considerations. Installation and modernization of restroom facilities, shower rooms, and safety color scheme painting are but a few of the steps that have been taken. Softball and bowling teams have been organized and employee response has been highly enthusiastic.

Engineering and management are currently studying wood storage, handling, and preparation with a view to effecting modernization of these phases of mill activity.

Future plans call for landscaping of the grounds, yard lighting, and improved raw material storage and handling, including clay, size, alum and color.

For State Senator

Harry A. Binzer, secretary of Puget Sound Pulp and Timber Co., and former Bellingham city comptroller, is a candidate for the Republican nomination as state senator from the Bellingham district of Washington State.

Riis Is Elected Vice President Of International Paper Co.

Erling Riis, who has his headquarters in Mobile, Ala., has been elected vice president of International Paper Co., according to announcement by John H. Hinman, president.

Mr. Riis has been in charge of manufacturing and construction operations of the company's mills in its Southern Kraft Division since 1927, when properties of Louisiana Pulp & Paper Co. were acquired.

He will continue to direct these affairs of the eight southern mills and will also continue his custom of presiding at the annual collective bargaining negotiations held in Mobile for all these mills. Major J. H. Friend is vice president and general manager of the Southern Kraft Division.

Mr. Riis came to the South after holding important positions in the Thilmany Pulp & Paper Co., a kraft operation in Kaukauna, Wis. He was born and educated in Norway.

Carl S. Volk, assistant treasurer, relieving H. R. Weaver, who had been serving both as first vice president and treasurer, of the latter duties.

\$427 for Suggestion; Utilizes Blowdown Heat

A \$427.68 prize for a suggestion—the highest ever paid at the mill—was recently awarded to Beverly C. Smith, who was power plant statistician at the time he turned in suggestion at the Crown Zellerbach mill in Port Townsend, Wash.

Mr. Smith made a suggestion to utilize heat in the mill boiler blowdown of steam which formerly was sent to the sewers. The hot boiler blowdown is now passed through a heat exchanger and the resulting hot water is used to wash pulp.

All Crown Z mills now pay off on suggestions on the basis of resulting financial savings. For instance, if a sugges-

tion pays out the investment in three or more years, the employee gets 10% of the first year's savings. If it pays out in two years, he gets 15% of the first year's savings, and if the pay-out is in a single year, he gets 20%.

New Wage Rates For British Columbia

AFL unions in British Columbia signed new contracts May 29 with Powell River Co., British Columbia Pulp & Paper Co., Pacific Mills and Sorg Pulp Co., which provides hourly wage increases of 15 cents, bringing the minimum to 82 cents an hour. The work week was reduced from 48 to 44 hours.

INDUSTRY PAYROLL STATISTICS

The 1945 and 1946 data in the following tables were not available when the North American Review Number of PULP & PAPER INDUSTRY was published recently. This supplements considerable statistical information on this subject in the 1946 North American Review Number. (Copies of that issue are still available—See Page 50.)

Since the following data was issued by the American Paper & Pulp Association, there have been further wage increases granted, notably in the Kalamazoo area and also on the Pacific Coast. Effective June 1, the latter's average pay for men employees was boosted to about \$1.27 an hour and minimum hourly rates were increased to \$1.09 for men and 90½ cents for women.

In January 1946, the average hourly wage for the entire United States industry was 99.7 cents.

The average weekly earnings totaled \$43.88 for all U. S. employees in that month. Their average hours worked in that month were 44.

UNITED STATES PAYROLLS

Average Hourly Earnings in Cents of Productive Employees (Exclusive of Converting Employees) in Pulp and Paper Manufacturing.

Source: Calculated from tables received from A.P.P.A.)

	1938	1939	1940	1941	1942	1943	1944	1945	1946
	June to December Inclusive						January		
Pacific Coast	79.6	79.8	83.8	97.7	106.9	114.7	118.6	117.2	129.0
Other Regions	61.3	61.6	65.0	72.6	81.2	86.5	88.9	90.0	98.0
New England	60.8	61.2	64.0	71.5	79.3	84.0	86.5	90.8	91.9
Middle Atlantic	63.9	64.3	67.6	76.2	85.2	89.4	91.9	96.6	98.6
Lake States	65.0	65.6	68.0	74.7	82.1	86.0	89.1	93.5	98.8
Central (North)	62.6	62.4	64.4	71.9	78.7	83.1	86.0	92.7	95.3
Central (South)	54.9	55.1	59.5	66.5	76.2	79.5	83.2	87.1	89.0
Southern (East)	57.3	55.9	61.7	74.0	84.2	86.0	92.7	97.3	106.0

UNITED STATES PAYROLLS

Average Weekly Earnings of Productive Employees (Exclusive of Converting Employees) in Pulp and Paper Manufacturing.

(Source: Calculated from tables received from A.P.P.A.)

	1938	1939	1940	1941	1942	1943	1944	1945	1946
	June to December Inclusive						January		
New England	22.39	24.27	24.35	29.78	32.63	38.59	41.21	42.94	42.99
Middle Atlantic	24.04	26.74	26.29	31.97	35.84	41.11	43.44	45.64	45.71
Lake States	25.17	26.62	27.52	31.18	34.15	39.15	41.48	43.34	54.69
Central (North)	23.41	25.23	26.03	31.04	31.73	37.19	40.05	41.93	42.80
Central (South)	20.79	21.85	23.25	27.22	30.34	34.32	37.42	36.74	38.04
Southern (East)	21.39	21.82	24.52	28.88	34.71	38.43	43.68	43.13	37.12
Pacific Coast	\$26.49	\$30.12	\$32.33	\$36.54	\$43.71	\$50.40	\$51.66	\$49.63	\$54.69

CALIFORNIA EMPLOYMENT AND PAYROLL DATA

(Based on all contribution reports submitted to department)

Industry	1943			1944			1945		
	Total Wages Paid	No. of Plants (a)	No. of Workers Jan., Dec.	Total Wages Paid	No. of Plants (a)	No. of Wkrs. Dec.	Total Wages Paid	No. of Plants (a)	No. of Wkrs. Dec.
Total	\$19,194,995	136	8,294	\$20,683,393	145	8,712	\$22,787,169	156	8,744
Coated and Glazed Paper	1,488,545	8	802	1,541,469	8	664	1,697,649	8	634
Paper Envelopes	1,809,274	14	832	1,802,058	14	682	1,969,892	15	634
Paper Bags	1,386,903	13	761	1,832,669	16	892	2,218,506	17	887
Paperboard Containers and Boxes (c)	11,050,975	58	4,419	6,549,062	53	2,716	7,428,882	57	2,818
Pulp Goods and Paper Products, not Elsewhere classified (b) (c)	3,459,298	43	1,480	8,958,135	54	3,758	9,472,240	59	3,771

(a) Each branch of a multiple establishment—concern is counted as a separate establishment.

(b) Includes branches of such firms as pulp mills, paper mills and paperboard mills.

(c) Note considerable change between years 1943 and 1944 in classifications "Paperboard Containers and Boxes" and "Pulp Goods and Paper Products, not elsewhere classified." This is due to changing industrial classification of firms manufacturing paperboard as well as making containers and boxes from "Paperboard Containers and Boxes" group (firms fabricating containers from purchased stock) to "not elsewhere classified" group.

Source: California Department of Employment affiliated with Social Security Board Report 127A, No. 47 for 1943, No. 52 for 1944.

MANY MILLS CHANGE OWNERSHIP

The industry today is going through one of the most active periods of its history in the realignment of ownerships in mills and the conversion of mills to new products.

In the past two years, 28 mills have changed hands. The record as shown below is up to date, as of June 15, and shows that changes in-

volve a total of 3,130 tons of daily production.

A big shift has been in the book paper field, with leading magazine publishers either buying mills themselves or getting the product of mills bought by their supplying companies.

Book mills which have changed hands are Bryant, Watab, Colum-

bian, Combined Locks, N. Y. & Penn., Pejeboscot, and the West Tacoma division of Everett Pulp & Paper. The latter two are being converted to news. Wisconsin Pulp & Paper and Maine Seaboard, former news mills, are being converted to book, as some of the other mills listed below which have been in board or specialties.

Tons

Rated Daily
Capacity

Mill Sold	Location	Purchaser	Headquarters
315	Bryant Paper Co., Kalamazoo, Mich.	Time & Life Magazine, New York	
350	Maine Seaboard, Bucksport, Maine	Time & Life Magazine, New York	
100	Watab Paper Co., Sartell, Minn.	St. Regis Paper Co., New York	
50	Hennepin Paper Co., Little Falls, Minn.	Time & Life Magazine, New York	
5	Worthy Paper Co., West Springfield, Mass.	National Printing Co., Thompsonville, Conn.	
140	Combined Locks, Kaukauna, Wis.	Cuneo Press, Chicago, Ill.	
100	Pejeboscot Paper Co., Brunswick, Maine	Hearst Publications, New York	
100	Filer Fibre Co., Filer City, Mich.	Continental Can Co., New York	
175	Nashua River Paper Co., East Pepperall, Mass.	St. Regis Paper Co., New York	
200	John Strange Paper Co., Menasha, Wis.	(consolidated)	
325	New York & Penn., Lock Haven, Pa.	Curtis Publishing Co., Philadelphia	
10	Diamond Mills Paper Co., Saugerties, N. Y.	Fabricon Products, Inc., New York	
50	Wolf River Paper Co., Shawano, Wis.	Great Lakes Paper Sales Corp., Chicago, Ill.	
90	Wisconsin River Paper & Pulp Co., Stevens Point, Wis.	Consolidated W. P. & Paper Co., Wisconsin Rapids, Wis.	
100	Columbian Paper Co., Buena Vista, Va.	Mead Sales Co., New York	
80	Ontanogan Fibre Corp., Ontonagon, Mich.	National Container Corp., Long Island City, N. Y.	
70	Hoskins Paper Co., Menominee, Mich.	Marathon Paper Co., Rothschild, Wis.	
40	Tarentum Paper Mills, Allegheny County, Pa.	Ideal Container Corp.	
40	Gould Paper Co., Lyons Falls, N. Y.	Continental Can Co., New York	
70	North American Paper & Pulp Co., Cheboygan, Mich.	Simplex Pattern Co.	
15	New England Pulp & Paper Co., Otter River, Mass.	Seaman Paper Co., Chicago, Ill.	
323	Abitibi Pulp & Paper Co., Espanola, Ontario	Kalamazoo Vegetable Parchment Co., Kalamazoo, Mich.	
60	Groveton Paper Mill, Groveton, N. Y.	Windsor Locks Paper Co.	
22½	Victoria Paper Mills, Fulton, N. Y.	Gotham Tissue Co., New York	
100	Tomahawk Kraft Paper Co., Tomahawk, Wis.	National Container Corp., Long Island City, N. Y.	
50	Claremont Paper Co., Claremont, N. H.	Bulkley-Dunton Co., New York	
100	Champion-International Co., Laurence, Mass.	National Geographic Society, Washington, D. C.	
50	Everett Pulp & Paper Co., West Tacoma, Wash.	West Tacoma Newsprint Assn., Tacoma, Wash.	

3130½ TOTAL DAILY TONS

REPORT FROM HAWAII

One of the "Farthest West" American board mills is Hawaiian Cane Products, Ltd., which makes Canec, a cane fiber insulation board at its plant in Hilo, Hawaii. This is a bagasse operation which had early war years capacity of 300,000 sq. ft. daily of ½-in. board.

During the war about 95% of its production was used by various branches of the U. S. armed forces as insulation in cold storage warehouses and for construction of barracks, officers' theaters, etc.

W. F. Goldsmith, vice president in charge of production, writes to PULP & PAPER INDUSTRY that "a considerable quantity of our product went to forward areas, and the military have been kind enough to tell us that because of the short-

age of lumber and shipping space, our product was of enormous help to them."

"Now that the war is over," said Mr. Goldsmith, "we are fast getting back to pre-war activities and a considerable amount of our production will be shipped to the West Coast. There also appears to be a good market in the Philippines and presumably other Pacific areas when things open up, including shipping."

Their sales office is at 215 Market St., San Francisco.

"Generally speaking, I would say that the Hawaiian Islands were extremely fortunate all during the war," he said. "We did not suffer food shortages and very few things were rationed. As a matter of fact, I think we were far better off than we had any right to be."

Mead Men View Progress on New Mill

Three representatives of Mead Corp., which now has moved its principal headquarters to Dayton, Ohio, while maintaining the "parent" mill at Chillicothe, Ohio, and of its affiliated Mead Sales Co., Inc., were visitors in the Pacific Northwest during the past month.

They were Talbot Mead, son of George H. Mead, chairman of Mead Corp.; R. J. Burke, vice president of the sales company, with offices in New York, and David Brittain, representative of the sales company in Chicago. Mr. Brittain formerly was employed in Pacific Northwest mills.

When the new Bloedel, Stewart & Welch unbleached sulfate pulp mill, now being built at Port Alberni, B. C., is completed, its product will be marketed by Mead Sales Co. The Mead officials went to Port Alberni to view progress of the mill and visited J. H. Bloedel, pioneer Pacific Coast timber industrialist, in Seattle.



JAMES M. RUCK, whose appointment as Operation Superintendent of the new Marathon Paper Mills of Canada, which will soon begin production at Marathon, Ontario, is announced by Niles M. Anderson, Vice President of the Canadian subsidiary of Marathon Corp. Mr. Ruck has been with mills in Maine and Washington states in recent years, his most recent position being Recovery Superintendent at the St. Regis mill in Tacoma, Wash.

CHARLES MUNT has been appointed Master Mechanic at the new Marathon pulp mill, it is also announced by Mr. Anderson. Mr. Munt also came from Tacoma, Wash.



VERNON L. TIPKA, former Technical Director at Hawley Pulp & Paper Co., is now Resident Manager of the Paper Corp. of America mill at Cheboygan, Mich. (formerly North American Pulp & Paper Corp.) The mill produces 70 tons of paper daily on two Four-drainers and a cylinder mill, its products including tissue, sulfite bond, book, kraft, specialties, etc.

Big news in Cheboygan a few weeks ago was awarding of the Army's Commendation Ribbon to Mr. Tipka for his "exceptional" and "outstanding" service as a First Lieutenant in the Quartermaster Corps during the war. He had the responsibility of procuring fine paper for War Department needs.

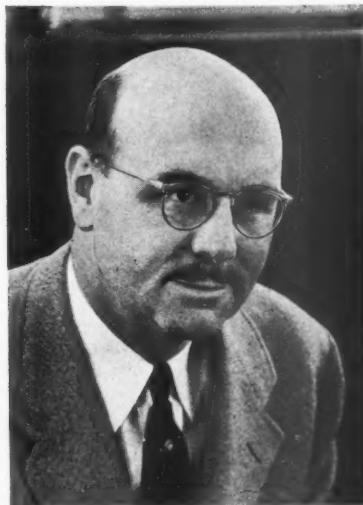
June 1946



A. L. WALKER, Jr., Sales Department, Texas Gulf Sulphur Co., Inc., 75 East 45th, New York (17), whose arrival in Portland, Ore., on May 25 coincided with that of the first water-borne shipment of sulphur by his company to the Pacific Coast since before the war. The cargo of sulphur arrived in Portland harbor from Texas that same day on the carrier John W. Meldrum.

Mr. Walker's visit to the Coast ended a long period in which sales executives of his company generally abstained from extensive travel in order to cooperate in easing war-time transportation.

Mr. Walker toured the entire Coast and in the Northwest was accompanied by John M. Fulton, Manager, Pacific Coast Supply Co., which represents the sulphur company.



THOMAS J. BANNAN, President and General Manager of Western Gear Works, with plants in Seattle and Los Angeles, was elected National President of American Gear Manufacturers Association at June 3-5 convention in Hot Springs, Va.



CURT F. ROSENBLAD (left), President of Aktiebolaget Rosenblad Patenter, Stockholm, who recently completed his first trip to U. S. and Canada since 1938. His company has developed processes for converting sulfite liquor to fuel and for heat reclaiming.

EMIL CREUDZ (right), head of American Heat Reclaiming Corp., RKO Bldg., New York City, is Mr. Rosenblad's representative in this country.

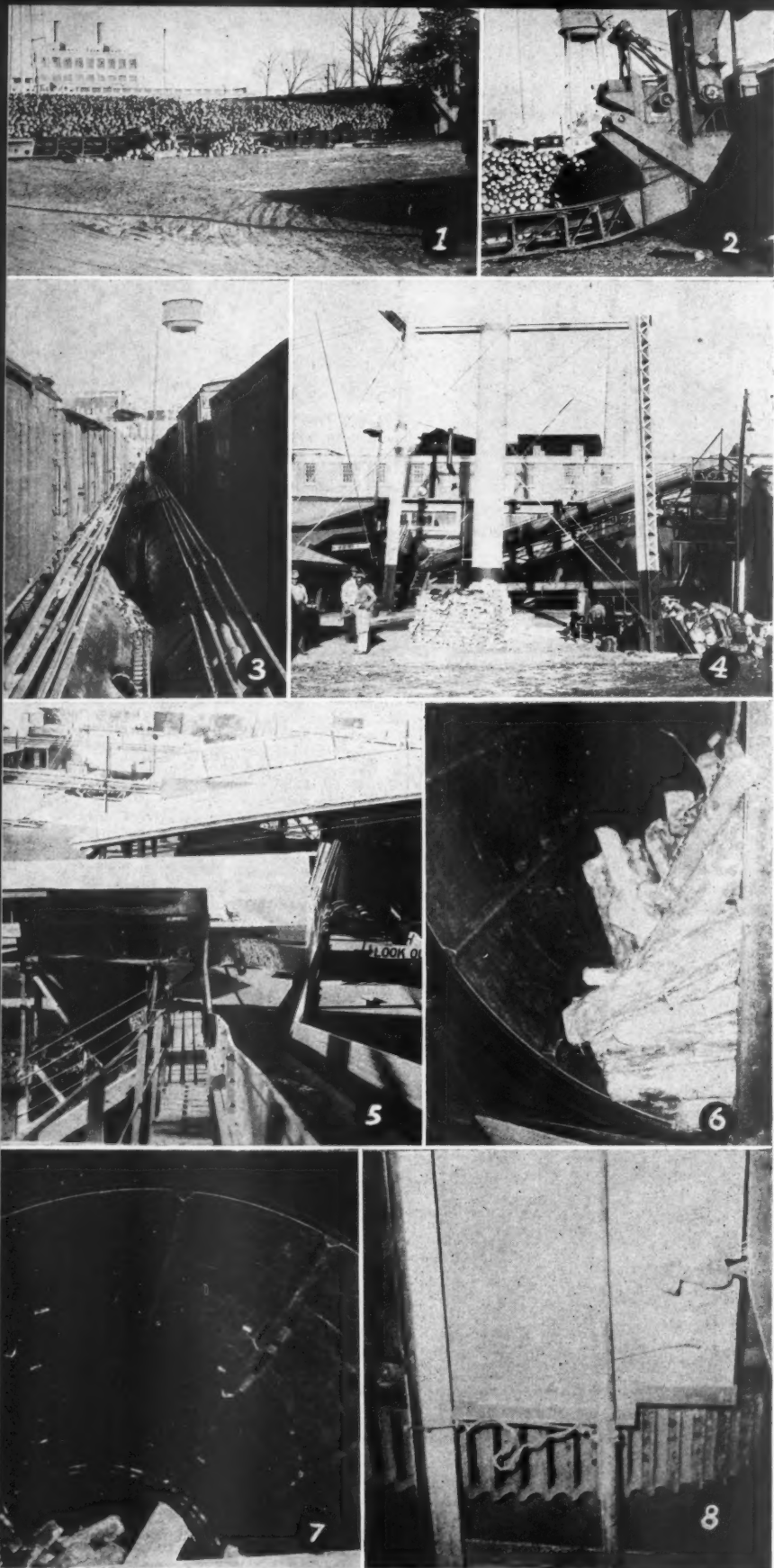
Rosenblad Ends Third Tour of U. S.-Canada

Curt F. Rosenblad, president of Aktiebolaget Rosenblad Patenter, Stockholm, returns to Sweden this month after a visit to the United States and Canada. While here he made his headquarters at the office of American Heat Reclaiming Corp., 1270 Avenue of the Americas, New York City, representative of his company in this country.

He visited mills in the Mid-West, the South, and in eastern Canada, on this, his third, trip to the United States. Mr. Rosenblad was in this country twice in 1938. The purpose of his trip this time is to investigate the further possibilities and interest in the Rosenblad system for converting sulfite liquor to fuel (See December, 1945, PULP & PAPER INDUSTRY), and also for the Rosenblad system for heat recovery.



CLARENCE W. RICHEN, appointed Chief Forester of Columbia River Tree Farms, Crown Zellerbach Corp. Mr. Richen was author of the paper "Some Problems in Re-Logging Cutover Lands," published in Feb., 1945, PULP & PAPER INDUSTRY.



Here's That Quiet Heard About—And

If you are in Jacksonville, Fla., and looking for the National Container Corp. mill, don't trust your ears to pick up the familiar sound of pulpwood tumbling in the barker to locate the plant. The reason, the drum is enclosed in an insulated building and there's no noise to speak of outside. The company believes it has the only sound insulated barker in the South.

Elimination of the din of tumbling pulpwood is not the only feature of National Container's wood handling methods. First is the arrangement of wood yard to obviate unnecessary handling; the second, is the use of a welded barker instead of the conventional riveted facility.

Pulpwood comes into the yard either by rail or by truck. If by rail, the delivery is carefully scheduled so that the material is unloaded directly into the 600-foot wood conveyor. The freight cars are spotted alongside this device.

If the wood comes by truck, it is racked in piles that run at right angles to the main unloading conveyor. Whenever the rail deliveries run slack, or it is desirable to provide a gap in rail delivery scheduling, these truck unloaded piles are passed into a Jeffrey conveyor (Jeffrey Manufacturing Co., 944 North 4th St., Columbus 16, Ohio) and discharged into the main line serving the barking drum. Inasmuch as the regular unloading crews load the truck delivered pulpwood into the Jeffrey unit, there is no extra yard or duplicated crew handling.

Under normal pre-war conditions,

THESE PHOTOS BY PULP & PAPER INDUSTRY show the wood handling equipment and drum barking equipment at National Container Corp., Jacksonville, Fla.

1. Wood brought by trucks is piled at right angles to main conveyor to which it is delivered (as wanted) by Jeffrey unloader (at right).

2. Close-up of Jeffrey unloader.

3. Pulpwood conveyor is flanked on each side by railroad switch track providing direct unloading by crew from cars.

4. Upon reaching mill, conveyor makes 90 degree change in direction to deliver wood into barker which is enclosed in insulated building (partly showing at right).

5. Detail of conveyor turn looking down the uptake to barker.

6 and 7. Views of Carthage Machine Co. welded barker.

8. Bolted on ring gear is only part of barker not welded.

Barker Which Bogalusa Meeting Other Jacksonville Improvements

it is estimated that it cost at least 50 cents to handle a unit of pulpwood in a wood yard. Under today's conditions, it is estimated that this cost would run to 75 cents per unit or better.

The pulpwood conveyor makes a 90-degree turn just prior to entering the barker.

The barking drum itself is a welded unit of 15 foot diameter, 45 feet long, furnished by Carthage Machine Co. in 1938. It is of 250-ton capacity. The plate is $\frac{3}{4}$ inch thick. The gear rings are bolted in.

In discussing barking drum main-

tenance in round table discussion of machinery at last fall's meeting of superintendents at Bogalusa, La., W. M. ("Judge") Cary, production manager for National Container Corp.'s mill, said this drum required less maintenance because it had no rivets to be shaken loose as in the case of the standard designed barker.

"JUDGE" W. M. CARY, Production Manager for National Container Corp., Jacksonville, Fla. He described the quiet, low maintenance drum barker and wood handling equipment to other members of superintendents' association at round table discussion on equipment at meeting last fall in Bogalusa, La.



Slump Hits News-stand Magazines

Late in May the first postwar slump hit the newsstand magazines, and this time some of the heretofore impervious leaders were affected.

Some observers thought the slack was a seasonal one—many consumer magazine publishers get their necks out on March and April printings, have to withdraw during the summer months.

Others believed that perhaps it was a foretaste of the "settling down" which many have been predicting for the mass magazines.

Another reason given is overcrowding of the newsstands. With so many titles not every "tree" can find light enough to grow on. *Readers Digest* and *Coronet* have been trying "saturation tests" in some cities, deliberately loading stands to see what will happen.

In some instances returns of from 20 to 30% have been reported.

Comics have taken a terrific flop—from 35,000,000 in February to probably 25,000,000 or lower in March and April. Comics use newsprint except for covers.

Life reports itself as still "hopelessly sold out" and the women's service magazines are going well. This is interesting because it is in these classifications that recent mill acquisitions and expansions have been made by such publishing concerns as Time-Life and Curtis. But confession and detective magazines are getting returns up to 20%, and the pocket books are in a furious distribution battle with Pocket Books and Bantam in the lead.

No doubt of it, the wartime honeymoon of the newsstands is over. Only the strongest titles are going to survive, and these are

likely to be the best known. Publishers have come to a realization of the need for new surveys and are making them. It is believed that women are reading less since the war's end, and a slump is looked for in magazines catering to the lower income women. What release from the services has done to the male reading habits is not yet known in certainties, but here it is believed that the market has increased.

Meanwhile magazine people are taking a look at the super-markets as a possible outlet for magazines, so distribution may be solved in a way not now foreseen. Behind all this puzzling transition lies a hard fact: with production and distribution costs absorbing more and more of the profit margins, magazine publishers cannot stand against heavy newsstand returns, or even against what was considered "normal" during the war.

To Test New Wood For Cellulose in South

Tests to determine whether the arhol or salt cedar tree which grows profusely in the Rio Grande Valley can be used as a new source of cellulose will be effected at an early date. The McAllen Chamber of Commerce has asked a Texas paper mill to conduct tests of samples of the wood to be furnished by local interests. The salt cedar tree grows profusely with little care on inferior salty land.

U. P.'s "Salute"

For the first time in its history, and probably for the first time for any American railroad, the Union Pacific during 1946 is advertising in trade publications—more than one hundred of them, representing 72 different industries.

Each advertisement is full page in size, the theme being "A Salute to American Industry," the copy having a distinct freight solicitation flavor.

Simpson Board Mill In West is Delayed

The new, modern insulating board mill being built by Simpson Logging Company at Shelton, Wash., is progressing ahead of schedule as concerns the work of actually erecting the buildings, but the machinery and equipment is not available. Shut-downs of the steel mills and the coal mines delayed delivery of equipment as planned. It was originally expected the mill would be in production by the middle of this year, but now operation is indefinite, pending delivery and installation of the machinery.

The laboratory building has been built, as has the warehouse, and considerable of the mill building.

A wood and chipping plant, built in conjunction with the Number 2 sawmill of Simpson Logging Co., is adjacent to the board mill property. Chips will ultimately go directly from the chipping plant to the board mill. At present the chips manufactured are used by pulp mills on the Olympic peninsula. A Downtown board machine, a Bauer and an Asplund defibrator have been ordered for the new Simpson mill.

General Chemical Plans in the South

The General Chemical Co., subsidiary of Allied Chemical and Dye Corp., has advised the State Research, Planning and Development Board that it will establish an engineering section at Columbia, S. C. Headquarters of the company are at 40 Rector St., New York City, with offices in the south in Atlanta, Charlotte, and Houston.

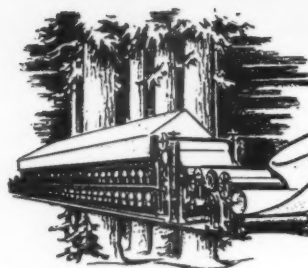
Indian Agent Wants To Represent U. S. Firms

S. N. Jhunjunwalla, manufacturers' agent of 92 Harrison Road, Calcutta, India (cable address—Blonde), has written this magazine stating he is interested in obtaining a commission to represent American or Canadian pulp and paper manufacturers in India.

His principal in the U. S. is Edwin Seebach Co., 910 Broadway, New York City.



THE GEARHART, ORE., JOINT SUPTS.-TAPPI Spring Meeting reached its climax with the surprise announcement of Shibley Award winners for 1945 and 1946. The winners are shown here with national leaders of TAPPI (left to right): WILLIAM PITTAM, Pulp Div., Weyerhaeuser Tbr. Co., Longview, Wash., 1945 prize winner; GUNNAR NICHOLSON, President of TAPPI, who made the awards; R. G. Macdonald, Sec.-Treas. of TAPPI; RAYMOND S. HATCH, Past President of TAPPI and Chairman of Shibley Awards judges, and PETER WILKIE, Crown Zellerbach Corp., Camas, Wash., 1946 winner. Mr. Nicholson suggested that all other sections of TAPPI should give similar prizes to encourage young men in mill operations.



SUPERINTENDENTS-TAPPI

JOINT ANNUAL SPRING MEETING

At Gearhart, Oregon,
Smashes All Records

SHIBLEY AWARD CONTESTANTS AND THEIR WIVES were honored guests at the final banquet at Gearhart, Ore. Many mill men felt that the convention achieved its most significant purpose when these awards for young men in mill operations were presented.

Top row (left to right) MRS. RUSSELL GRAFF, wife of the contestant from Longview Fibre Co.; OLIVER MORGAN, a Weyerhaeuser contestant, and MRS. WILLIAM PITTAM, wife of Weyerhaeuser employee who won 1945 prize.

Lower row (l. to r.): RUSSELL GRAFF; MRS. OLIVER MORGAN, and WILLIAM F. ABBOTT, Puget Sound Pulp & Timber Co. contestant.



It was the biggest regional meeting held anywhere by the industry in years—and it featured many matters of national interest.

The Superintendents-TAPPI convention at the "air-conditioned" ocean resort of Gearhart, Ore., May 16-18, was such a whopping success that the 350 participants voted overwhelmingly to return there again. Maybe in 1947—but that will be up to the committee for official action in light of conditions next year.

Glorious weather, plenty of crabs, clams and Chinook salmon, and a balanced mixture of serious business, sports and good fellowship—plus hard work by officers and committees—put over the meeting.

Plans for three big national TAPPI meetings in the fall—in Detroit in late September, and in Milwaukee and New Orleans in October—were announced by G. W. E. Nicholson, president, and R. G. Macdonald, secretary-treasurer, of TAPPI.

Raymond L. Barton, retiring national president of the Superintendents, said his group would hold annual "general maintenance conferences" inviting engineers who service the industry (in addition to present fixtures) and would give consideration to a superintendents' national convention on the Pacific Coast in 1948.

Mr. Nicholson awarded Shibley prizes to William Pittam of Weyer-



GEORGE "PINKIE" GALLAWAY (upper left), Assistant to Paper Mill Supt., Crown Z, Camas, elected new TAPPI Chairman. He presided at final joint session, and on his left are participants in that session (reading to right): DR. JOHN D. RUE, Hooker Electrochemical Co.; VICTOR C. HANER, Puget Sound Pulp & Timber Co.; JOSEPH HOLVECK, Worthington Pump & Mfg. Co.; ROBERT G. MISPLEY, Asst. Technical Director, Crown Z's Central Tech. Dept., and M. J. MAGUIRE, Hercules Powder Co.

In lower row, group at left were members of Papermakers' Panel (left to right): CHARLES ACKLEY, Crown Z Supt.; WALTER SNYDER, Asst. Paper Mill Supt., Powell River Co.; GUS OSTENSON, Crown Z Paper Mill Supt. at Camas, who presided; BILL GOODWILLIE, Beloit Iron Works, and TONY SIEBERS, Paper Supt., Longview Fibre Co. Next are Mr. NICHOLSON and Vice Pres. A. R. HERON of Crown Z, who was second day luncheon speaker.

haeuser and Peter Wilkie of Crown Zellerbach Corp. and recommended that other TAPPI sections award similar prizes for papers by young men in actual mill operations.

George H. Gallaway, assistant to paper mill supt., Crown Zellerbach Corp., Camas, Wash., was elected Coast TAPPI chairman for 1946-47. Dr. J. L. McCarthy, University of Washington, Seattle, was elected vice chairman in charge of programs, which means there will be another meeting at the University next fall. Bob True, General Dye-stuff Corp., was re-elected secretary-treasurer. M. J. Maguire, resident manager, Hercules Powder Co., Portland, Ore., was elected new member of the executive committee, with Harold Bialkowski, retiring chairman and technical director, Weyerhaeuser's Pulp Division, Everett, Wash., as another ex-officio member.

Mr. Macdonald said TAPPI is now reviewing its "publications problem" under a committee headed by Forest Brainerd of Scott Paper Co., and said their were two groups favoring establishment of TAPPI's own magazine. Instead of publishing TAPPI papers as at present, in a commercial publication, one group favors a high grade non-advertising scientific journal devoted to records of research and another favors a monthly or quarterly journal devoted to papers and contributed articles. (See editorial on page 15.)

James Ritchie, representative of the U. S. Pulp Producers Association, said OPA price increases have justified a reasonable assumption that 1946 pulp supply will match demand. He estimated 1946 U. S. requirements at 12,313,000 tons, including 200,000 for export and a 750,000-ton increase domestically over 1945.

J. E. "Bill" Goodwillie, Beloit engineer, discussed new paper machine developments, with emphasis on new designs of head box and slice and also upon the new use made of a primary suction couch, installed at the position commonly occupied by wire guide roll. Only on one machine so far in this country, this permits greater operation safety, improved hydration before the dryers and better wire life.

Dr. John D. Rue, Hooker Electrochemical Co., Niagara Falls, N. Y., discussed the trend toward multiple-stage, continuous flow bleaching, the demand for high pulp brightness. He talked about successes in bleaching sulfate pulp.

Joseph Holveck, noted hydraulic engineer, Worthington Pump & Mach. Corp., Harrison, N. J., discussed and showed movies of the new adjustable ring-type whole log hydraulic barker at Soundview Pulp Co.

R. G. Misphey, assistant technical director, Crown Zellerbach Corp., presented an analysis of rosin sizing techniques and characteris-

tics. M. J. Maguire, resident manager, Hercules Powder Co., Portland, Ore., sized up the rosin supply situation. Victor C. Haner, Puget Sound Pulp & Timber Co., told of how to get around building materials shortages.

William Pittam, Weyerhaeuser Timber Co., talked about sulfite pulping SO₂ effects; L. C. Kelley, British Columbia Pulp & Paper Co., discussed acid plants, and Jack Wilcox, Electric Steel Foundry Co., described the new Swenson-Nyman washer installation at Union Bag & Paper Corp., Savannah.

Col. A. R. Heron, Crown Zellerbach vice president, put "jobs" under a microscope in a philosophical speech at the Saturday luncheon and urged both management and employees to recognize that customers—and only customers—really create jobs. Bob Wertheimer, vice president of Longview Fibre Co., introduced Col. Heron, describing him as "the man who had kept pulp and paper industry labor relations running smoothly on the Pacific Coast."

C. E. Ackley, of Crown Zellerbach Corp., chairman of Coast division of Superintendents and also general chairman of the convention, was rewarded for these services by a trip this month to Poland Springs, Me., national convention of Superintendents.

Mr. Maguire of Hercules; W. N. Kelly, G. F. Alcorn and William



RAYMOND L. BARTON (upper left), retiring President of Superintendents Association from Michigan Paper Co. of Plainwell, was featured speaker at first day's luncheon.

Right of him, in order, are JAMES RITCHIE, U. S. Pulp Producers Assn., New York; MRS. R. S. WERTHEIMER and MR. WERTHEIMER, Vice President of Longview Fibre Co. and Toastmaster at second luncheon, and HAROLD W. BIALKOWSKY, Technical Director, Weyerhaeuser, Everett, retiring Chairman of Coast TAPPI who presided at first joint session.

Lower row, left to right: MR. NICHOLSON; MRS. GERALD F. ALCORN, wife of Weyerhaeuser's Manager in Everett; MRS. CHARLES E. ACKLEY, presiding at women's luncheon; MR. ACKLEY, Crown Zellerbach Corp., General Convention Chairman, and MRS. BARTON.

Haverman, all of Weyerhaeuser Timber Co.; J. M. Fulton and W. C. Marshall of Pacific Coast Supply Co.; Gus Ostenson of Crown Zellerbach Corp.; Ray Smythe, Rice-Barton Corp.; Fred Armbruster, Dow Chemical Co., and Max Oberdorfer, St. Helens Paper Co., were the members of Mr. Ackley's hard-working convention committee.

Bill Marshall awarded a number of golf prizes with top men's awards going to Gus Ostenson (low gross) and Jim Brinkley (low net), and for women to Mrs. Erik (Marie) Ekholm (low gross) and Mrs. Harold Hauff (low net).

Nicholson Voices Convention Keynote

"There is no phase of our work more important than the development of young men who will step into positions of leadership."

With these words, Gunnar Nicholson, TAPPI national president—a man who himself rose from the ranks to eminence in American industry—gave expression to the dominant theme of the record-breaking 1946 Pacific Coast Superintendents-TAPPI Joint Spring Meeting.

From his lips, this was no empty platitude. A young Swedish tourist, who came to this country for a two-year "working" visit with boyhood friends, but who said good-bye to

his pals and remained behind to face handicaps that most Americans are spared, he became this year the vice president in charge of all manufacturing of Union Bag & Paper Corp., at Savannah, Ga., and Hudson Falls, N. Y.

In sounding this keynote of the meeting, he needed no notes—no written speech. And the audience at the final banquet, who literally hung on his words, knew he didn't need them, for hadn't he actually "lived" that theme? It was not just so many words strung together when he talked about "grit" and "initiative" and when he said "I don't believe in bad luck" and "any young man can succeed in industry with or without education."

Raymond S. Hatch, himself a past national president and a charter member of TAPPI, who is research director of Weyerhaeuser's pulp division, didn't have to elaborate on Mr. Nicholson's own record in introducing him. This record in the South in developing young technically-trained executives, as well as in promoting better management-employee and industry-community relations was too well known. It was a record of action—not just words.

So, when Mr. Nicholson arose to present the Shibley Awards for

1945 and 1946 (there had been no '45 meeting), it might be said that the Gearhart convention reached the fulfillment of its fundamental purpose. Judged the winners by a committee which Mr. Hatch headed, were:

For 1945—William Pittam, engineering department, Pulp Div., Weyerhaeuser Timber Co., Longview, Wash. (His paper, *Extraction of tannin from waste western hemlock*, was published in Dec. 1944 issue, PULP & PAPER INDUSTRY.)

For 1946—Peter M. Wilkie, Crown Zellerbach Corp., Camas, Wash. (His paper, *Some practical aspects of Douglas fir pulping* appeared in March 1946 PULP & PAPER INDUSTRY.)

In presenting the awards, Mr. Nicholson urged that all other TAPPI sections in the country should follow the lead of the Coast section and set up similar awards for the best paper of the year by young men actually employed in mill operations. In his capacity as national president, he said, his objective would be to assist the various sections in developing their regional activities to a greater extent.

Three TAPPI Fall Meetings

In line with this policy, he announced there would be three different three-day Fall Meetings this year, instead of just one big one



PARTICIPANTS IN PULPING SESSION (left to right): WILLIAM PITTAM, Weyerhaeuser Timber Co., Longview; L. C. KELLEY, British Columbia Pulp & Paper Co., Woodfibre, B. C.; GERALD ALCORN, Weyerhaeuser Timber Co., Everett, who was Chairman, and JACK WILCOX, Electric Steel Supply Co.

as in the past. They are set for:
Detroit—in late September.

Milwaukee—first week of October.
New Orleans—mid-October.

The New Orleans meeting, like the one Mr. Nicholson led in pioneering in the South in 1945, will deal exclusively with alkaline processes and chemical by-products. The emphasis at Milwaukee will be on engineering, with visits to big equipment plants there. Detroit will embrace the rest of the usual TAPPI curriculum.

In the Pacific Coast Shibley contest, all five contestants were competing against each other for the two prizes, regardless of the year of their entry. Mr. Nicholson stressed that the \$50 money prize was no real measure of its value as "a stimulus to the thinking of younger men." He announced that the other contestants—Russell Graff, Longview Fibre Co.; William F. Abbott, Puget Sound Pulp & Timber Co., and Oliver P. Morgan, Weyerhaeuser Timber Co.—received gift copies of "Chemistry of Pulp and Paper" by Edwin Sutermeister, distinguished S. D. Warren Co. research chemist.

Although a graduate himself of Chalmers Institute in Sweden, member of a little class from which every member has today become a top industrial executive, Mr. Nicholson observed that "some young men who never were able to finish more than the third grade of grammar school are successful managers of mills in the South."

"I have personally recommended such men as members of TAPPI," he said. "These young men were denied a technical education and had to put in long hours to make up for what others had."

Reporting on his tour of western operations prior to the meeting, Mr. Nicholson said he found Pacific Coast mills to be outstanding nationally because of their (1) modern

equipment, (2) modern methods, and (3) great size.

"You also have taken leading steps with industrial labor problems," he said. "This is the only part of the United States where we have true collective bargaining. Top men in the union movement in other parts of the country have been talking about the way you do things."

"The Crown Willamette Paper School at Camas is the only one of its kind in the world. We all are watching it over the country, and some day we hope we can follow your lead."

"But you must have the right background, the right men and the right spirit before you can start these things. You have them out here."

In discussing TAPPI affairs he said the Pacific Coast section had shown "leadership" and he praised William R. Barber, national executive committeeman and Crown Zellerbach technical director, who was unable to attend the Gearhart sessions because of illness, for bringing young men into TAPPI.

"I hope we can develop the same enthusiasm in all sections of TAPPI, and if so TAPPI will be stronger."

Barton Tells Plans Of Superintendents

The second largest division of the Superintendents' Association on the continent took an equal part with TAPPI in staging the Gearhart program. The superintendents had their big moment at the first day's luncheon when Ray Barton, their national president, who has since retired, was the featured speaker.

Although in two years he traveled many arduous miles in conscientious and devoted service to his group, Mr. Barton, who is superintendent at Michigan Paper Co. of Plainwell, was seeing the Pacific Coast for the first time, as was Mrs. Barton. Incidentally a former Pacific Coast

mill man, Bill Astle, was serving as acting superintendent at Plainwell so the Bartons could make the trip.

Mr. Barton said the General Maintenance Conference staged by the superintendents at Middletown, Ohio, was so successful it would be held annually hereafter. The superintendents are expected to hold their spring national convention in Chicago next year but the Pacific Coast will be given serious consideration for 1948, he said. He also announced an extension of the superintendents' 1946 essay contest deadline to July 1.

"We are going to attempt to have worthwhile and serious business meetings," declared Mr. Barton.

The joint session of that day brought forth two talks of general—even nationwide—interest. One was on future plans of TAPPI by "Red" Macdonald of TAPPI, and the other on the pulp outlook by James Ritchie, of the U. S. Pulp Producers Association, both coming from New York to deliver their messages.

Macdonald Discusses TAPPI Publications

Mr. Macdonald recalled his part in founding the Pacific section of TAPPI 17 years ago—June 1929—in Portland, Ore., and observed that, in all of the country, interest in TAPPI "was most manifest" on the Pacific Coast.

He traced the educational leadership of TAPPI, observing that its 5-volume textbook on pulp paper manufacturing has been distributed to extent of more than 30,000 copies. He also traced the expansion of the various TAPPI publication services and this led to a discussion of "what next?" in this field.

"Some members feel that TAPPI should have its own periodical magazine," said Mr. Macdonald. "There appears to be no simple solution of

this subject. One school of thought advocates the publication of our meeting papers and contributed articles in a monthly or a quarterly journal, and another group feel that this is not what is wanted. Rather, they desire a very high grade scientific journal devoted exclusively to the records of research and free from advertising matter.

"Consideration of the problem has been complicated by the fact that the Association now has media for publishing its papers. Since most of these papers have been freely offered to commercial trade magazines," he said, "there is but little incentive to discontinue the present practice, especially since all of the papers are made conveniently available and at low expense in the annual bound volume of Technical Association Papers. If there should be a change in policy wherein the association would retain exclusive publication rights it would necessitate issuing a periodical of some kind because of the time factor involved. If the association had always restricted its meeting papers to its members it is difficult to say how this would have influenced the size of its membership. Possibly many would have joined in order to get these papers but, on the other hand, it is possible that just as many would never have become acquainted with the association.

"Whether a special scientific publication should be issued is also a problem. It has been suggested that if such a publication existed there would have been many contributions of articles for publication that otherwise have not been available. Whether this is true or not is difficult to know. There has been no evidence that many of such articles have gone to any of the so-called scientific journals. A few articles have appeared in journals of other societies. I know that the executive committee is not opposed to expanding its publication services but to date the justification of a policy that would restrict the publication of meeting papers and contributed articles of any type to a magazine issued exclusively to members is not clear. There has been no evidence that the present policy has retarded membership growth. These considerations may be beside the point and TAPPI being a member organization, administered by and for all members, it is incumbent upon all members to express themselves on association policy matters.

"This does not infer that criticism is non-existent. Sooner or later, di-

Summaries of all the Gearhart papers appear in this article.

The complete paper by Mr. Misphey on rosin sizing also begins on Page 59.

The complete paper by Mr. Goodwillie on paper machine design begins on Page 64.

rectly or indirectly, I hear about most of the criticisms. Sometimes these come from members and more recently some of the industry's trade papers have expressed themselves. Our recent annual meeting was criticized by two publications. One felt that there were too many papers presented and that many were below standard. (See Editorial on Page 15.)

"However, this was not constructive in indicating what the standard should be and who can judge as to which papers should be omitted.

"TAPPI is an organization of broad interests. Some say that it is inclined to be highbrow, while others go to the other extreme and accuse the program makers of catering too much to those having practical interests only. A very irresponsible criticism is that many papers are merely sales talks. A paper presented by a representative of a company in an affiliated industry is not necessarily a sales talk even though it may be presented in an effort to supply rather specific data on a product that company hopes to sell to the paper industry.

"Another publication has been attacking the association for attempting to do a very constructive job for the paperboard and fiber container industries. It has sworn to high heaven that paperboard is not paper, through any stretch of the imagination, and has insisted on the creation of a new technical association devoted to paperboard. It admitted that TAPPI rated the recent award of the United States Navy's Certificate of Achievement, but apparently felt that the association overstepped its bounds when it aided the Armed Services in solving some of its many wartime packaging problems.

"The association has been criticized for having too many individuals attend its meetings. There is possibly some justification for this and steps are being taken to distribute the attendance to some extent by holding a number of national meetings of limited interest. A few weeks ago such a meeting was held

at Peoria, Ill., for the scientific benefit of the strawboard industry. This fall we hope to have a separate meeting for the plant engineers of the industry, and another for those primarily interested in alkaline pulping and byproducts. This should reduce the pressure on a general meeting that is also planned.

"Rumor has it that the association appears to be run by a small group in and near New York," Mr. MacDonald continued. "Those who know the workings of the association best, know that this is not so. In an organization as vital as TAPPI, made up of busy men and women, it is remarkable that there are any who are willing to give the time and to make the necessary effort to supply the association with the fine leadership that it has. Leadership in the association, its executive committee, its professional divisions, and its local sections require some sacrifice and considerable thankless effort. In fact we might paraphrase Winston Churchill in stating that throughout its history the many members of the Technical Association owe much to the relatively few members who have always been graciously willing to carry much of the load. In a company there are many factors that influence the extent to which an employee will extend his efforts for the benefit of his company, but in a professional society like TAPPI there is no such discipline possible. No one has to be a committeeman. No one need present a paper nor answer an inquiry that will benefit his fellow member."

He closed his remarks with an appeal for more unselfish participation in TAPPI by members.

Ritchie Sizes Up Pulp Situation

In his talk, Mr. Ritchie said the recent boost in OPA prices have made it a reasonable assumption that 1946 U. S. pulp requirements would be met. These he placed at 12,313,000 tons, including 200,000 for export and a 750,000-ton increase in domestic demand over last year due partly to a return to pre-war furnish standards.

He presented statistics showing the dominance of the U. S. in the pulp picture as both a producer and user. During the war it produced 51% of the world supply—with Canada, 90%—and presently the U. S. is consuming 60%. During the war, American pulp producers were supplying 90% of the nation's new pulp supply as compared with only 72% in pre-war years.

"The expansion that made this possible," he pointed out, "was a pre-war expansion, inspired by a fortunate conviction on the part of individual pulp producers that the ultimate trend of demand for the industry's products would be sharply upward. Fortunately, too, this was principally in grades most urgently needed for war; kraft pulp, for example. This industry thus was better prepared to meet the impact of war than any other basic American industry."

He gave four principal reasons for increased paper production in the U. S. from a 17,200,000 tons annual rate in the first quarter of 1945 to an 18,000,000 ton annual rate in the first 1946 quarter:

1. More efficient use of fiber supply and equipment in integrated mills as a result of termination of pulp allocations.

2. Increased pulp imports.

3. Liquidation of paper controls permitting more efficient production schedules than when producing for war needs.

4. Raising pulp and paper mill employment from the low of 142,000 in Sept. 1945 to 156,000 in Jan. 1946.

The task of further increasing both pulp and paper production, Mr. Ritchie said, is an "extremely important one" and a challenge to production and technical men.

In presenting his estimates of minimum pulp requirements for 1946, he divided the increased domestic needs as follows: 432,000 tons for increased paper production and 293,000 tons for furnish changes.

"A 1946 requirement of more than 12,300,000 tons for domestic consumption and export would contrast with the 1945 requirements of 11,500,000 tons," he said.

Mr. Ritchie said it was unlikely Scandinavian pulp reaching the U. S. mills in 1946 would exceed 900,000 tons—750,000-850,000 from Sweden and the remainder from Norway and Finland. He predicted U. S. pulp production in 1946 would exceed 1945's total despite a slight decrease in the first quarter. And he said imports from Canada were 13% higher in the first quarter than a year ago and "prospects of moderately high Canadian imports in 1946 appear to be good."

"If imports from Europe should approach the 900,000-ton mark," said Mr. Ritchie, "an increase of only 300 tons in the new supply from North America would provide the supplementary tonnage needed to satisfy an estimated minimum 1946 requirement of 12,300,000 tons."

U. S. pulp inventories of 750,000

tons on Jan. 1, more than double those of a year ago, he said, would continue to cushion any unfavorable development. He predicted mounting demands for pulp and paper, saying "more people are using more paper and paperboard for more purposes than ever before."

He presented figures indicating how much more efficiently the U. S. and Canada might use their forest resources.

"The forest land area of the U. S. is almost 4½ times that of the Scandinavian countries, while the combined forest land area of the U. S. and Canada is 10 times that of Scandinavia. U. S. pulp production requires less than 10% of its total forest cut; Canadian, 28%; and Swedish, 40%.

"On the basis of these figures, it would certainly seem that the U. S., with a properly managed forest economy, should be in a position to meet fully its long-term share of the growing burden of world's pulp and paper requirements."

Conclusion of Mr. Ritchie's report were as follows:

- "1. Under the incentive of recent price increases, our new supply of wood pulp in 1946 should be suffi-

cient to support a domestic paper and board production of at least 18,000,000 tons, despite the fact that shifting furnish ratios will increase the per ton pulp requirement.

- "2. An 18,000,000 ton domestic paper and board production, available almost entirely for non-military consumption, should maintain a higher level of operation in all industries dependent on paper and board than has ever before been possible.

- "3. World recovery is likely to result in a proportionately sharper increase in foreign demands for pulp and paper than in domestic demands.

- "4. The basic problem of the industry is wood supply.

- "5. The experience of two wars indicate the inadvisability of more than supplementary dependence upon Europe for the pulp and paper requirements of this country.

- "6. There is also some evidence of increasing utilization, in Canada, of Canadian forest products, with consequent prospect of some future curtailment of Canadian exports to the United States of both pulpwood and wood pulp.

- "7. It is believed, however, that

BELOW ARE MORE GEARHART SNAPS: Top row (left to right): MRS. HAROLD BIALKOWSKY, wife of retiring TAPPI Coast Chairman; EVA ERICKSON (Hercules Powder Co.), RACHEL ELLIS (Electric Steel Foundry) and JANE MAGUIRE (ex-Wave and daughter of Hercules' Portland Mgr.), who handled registration, and MR. MACDONALD.

In next row, at left, a pair of vice presidents and production managers of paper companies pose together for a picture.

In this row (left to right): MR. NICHOLSON, VP in charge of Manuf'g. for Union Bag as well as TAPPI President; MRS. CARL E. BRAUN and her husband, who is VP and Mill Mgr., Hawley Pulp & Paper Co. and an ex-Coast TAPPI Chairman; TOMMY WYBURN, Steam Plant Engineer, Powell River Co.; ED NUNN, Tech. Director, Crown Z., West Linn, and ERIK EKHOLOM, another ex-Coast TAPPI Chairman and Gen. Supt., Puget Sound Pulp & Timber Co.

Lower row (left to right): ADOLF ORUP, Research Director, Soundview Pulp Co.; ALLEN M. CADIGAN, Chief Chemist, St. Regis Kraft Pulp Division; R. W. SIMERAL, Vice Pres. and Mgr., Fir-Tex Insulating Board Co.; MAX OBERDORFER, Jr., Ass't. Mgr., St. Helens Pulp & Paper Co.; OTTO HARTWIG, C-Z Safety Director, and D. MANSON SUTHERLAND, the "Refiner Man" from Trenton, N. J.



the forest resources of the United States are sufficient to justify further necessary expansion of the domestic industry, provided such expansion is coupled with more intensive utilization and management of our forests, on a sustained yield basis."

Papermaking Group

At a joint meeting on the first day, Mr. Goodwillie of Beloit Iron Works gave his paper on paper machine developments during the war years. He said interest shown in recent developments for the headbox and slice of Fourdrinier machines indicated improvements there are earnestly desired.

He described a trend toward changes in locations of screens because of higher speed machines, some operators doing all screening in the pulp mill and others, requiring more length for machines, moving the screens out of the machine line, in some cases parallel to the machine.

He then discussed the cross-flow distributor to pass stock and water as a stream into the full width of the headbox, the improved rectifier or perforated roll for flow to Fourdrinier, and improvements in headbox design. While advocating slice arrangements permitting use of some degree of pressure formation, Mr. Goodwillie stressed that "no slice can perform satisfactorily unless the distribution and control of the stock and water flow in the head box is adequately handled, and that the slice itself needs flexibility and ease of adjustment, as well as the obvious requirement of stability under the pressure of the head to be carried."

He commented on the new trend toward greatly increased use of Douglas and other firs in western mills, by pointing out the great dilutions encountered in using fir pulp and said "growing use of fir stock places real emphasis on good slice and head box design."

Then Mr. Goodwillie turned to a discussion of the primary suction couch development, which duplicates in most respects the main suction couch roll but is installed at the position commonly occupied by the wire guide roll.

His remark that "the next few months will broaden out field of experience" with this new equipment recalled the recent announcement by Crown Zellerbach Corp. that its new all-purpose No. 15 paper machine, operating with speeds ranging from 250-1,500 f.p.m. on a wide range of weights, will have this

primary suction couch. Presently, only one other machine, in a big Southeastern board mill, has this feature.

"The primary couch roll assumes part of the work ordinarily done by the flat boxes and part of that done by the main couch," Mr. Goodwillie said, adding that the result is higher water removal and improved wire life.

He also brought out that this new arrangement makes for safer operating conditions of the sheet to the first press. It eliminates a condition which sometimes caused crushing and marking trouble or frequent breaks at the draw between couch and first press.

"The primary couch differs from the ordinary couch arrangement in that the sheet leaves the vacuum area of the primary couch still supported by the Fourdrinier wire," he said. "The vacuum box in the primary couch roll is set so the wire pulls away from the roll at the edge of the vacuum area and while the full effect of the vacuum is still acting to hold the water from throwing out. A saveall of ample proportions is fitted around the primary couch to catch the water thrown from its holes and the correct setting of the box in the roll can readily be established by watching this throw of water. The primary couch arrangement is operated much like a suction press as to the setting of the suction box position—the amount of water thrown into the saveall is much greater, however.

"With the primary couch handling the bulk of the water to be removed, the main suction couch apparently never receives enough to build up any slugs in its shell holes and for this reason the draw from the wire to the first press is no longer extremely critical. The vacuum action at the main couch probably starts with the sheet about as dry as it would finish on a conventional couch arrangement and results indicate this new two-couch combination sends a dryer sheet to the press as well as insuring much safer operation."

He mentioned growing use of compressed air for operation or controls, including an air-operated press felt guide and air operation of clutches in machine drives. He concluded his remarks by discussing types of reels and he mentioned particularly, the constant tension device which is finding wide use.

As would naturally be expected, the talk by Mr. Goodwillie was very much in the minds of the participants in the papermaking round

table discussion which followed with Gus Ostenson, paper mill superintendent at Camas, as the moderator. Mr. Ackley, Tony Siebers of Longview Fibre Co., Walter Snyder of Powell River Co., and Austin Nickels of Hawley Pulp & Paper Co., served on this panel.

The discussion dwelt to a great extent on the primary suction couch and possible future applications of this equipment. It was explained that the question of adapting it to existing paper machines has not yet been worked out but that a conversion unit may be anticipated. It also appeared to be a moot question—because of meager experience to date—as to what type of paper it was best suited.

That it made for safer operating conditions and a dryer sheet to the first press and that it removed more moisture than straight flat suction boxes were points that were emphasized. Also, that it eliminates some flat boxes and tends to increase wire life.

There followed a discussion of press sections, including dual press rolls. Such disadvantages as the still not fully solved problem of sticking to center roll on lightweight slow sheets were mentioned, while advantages also were pointed out—for instance, the removing of more water from a sheet before going into the dryer section.

A kraft mill superintendent discussed a new headbox design in his mill, the crux of which was the rectifier roll, assuring a freer flow through the slice, and cutting out of currents and cross-currents and entrapped air.

Pulping Group

Gerald F. Alcorn, manager of the Weyerhaeuser pulp mill at Everett, presided at the pulping group's session held simultaneously with the paper group's.

Mr. J. R. Lientz of Swenson Evaporator Co. scheduled to give a talk entitled, "Multi-Stage Washing," was unable to attend and Mr. J. M. Wilcox, of Electric Steel Foundry Co. spoke in his place. Swenson and Electric Steel are associated in a continent-wide sales and service agreement.

Mr. Wilcox discussed the new Swenson-Nyman washer installation at Union Bag & Paper Corp. in Savannah, Ga., which he described as one of the most recent and modern washer installations in the country. Mr. Wilcox's remarks were confined to his own observations when he made a short visit to the mill after the washers had been in operation only eight days.



FOLKS HAD FUN at Gearhart, too (left to right): ED MCGILL, Supt., Rayonier Incorporated, Shelton, Wash., and "SILVER"; MRS. GUS (Bernice) OSTENSON; MRS. SID (Janette) DREW; MRS. JOHN M. (Claire) FULTON; MRS. EDDIE CAVANAUGH, and MRS. BILL MARSHALL. Mesdames Ostenson, Drew, Fulton and Marshall were all members of the Ladies Entertainment Committee, working under John M. Fulton of Pacific Coast Supply Co.

Description of Union Bag System

The Union Bag and Paper Corp. plant is a kraft mill, producing approximately 1,000 tons of paper and board a day. It had previously washed its entire production of pulp in five rings of diffusers. These diffusers were all in one long building, extended at one end to provide additional space for the new washer installation. This building addition was designed to accommodate nine new washers but only six have thus far been installed. These six washers are in two lines of three washers per line. Each line is designed to handle an average of 200 tons of production so that eventually the washer addition will handle 600 tons of pulp.

Mr. Wilcox said the term "multi-stage washing" refers to the principle of a totally closed counterflow system with more than one stage of washing on each cylinder. The Swenson-Nyman washers are designed for two-stage washing on each cylinder, so that the installation of three washers in a line could provide from three to six stages. This installation was being operated five-stage, providing two stages on the first two cylinders and a single stage on the third and final cylinder.

Mr. Wilcox mentioned the following points as applying to the results

obtained during the initial eight-day operating period. Pulp washed was board grade, TAPPI permanganate No. 33. The pulpwood is hardest in the Southeastern turpentine belt and makes one of the most difficult grades of pulp to wash. The paper grade pulp is a softer cook (TAPPI No. 28) and washes somewhat more easily. The board grade pulp was being washed with a drop in total solids content of liquor ranging from $2\frac{1}{2}$ to 3%, which is equivalent to a dilution of 1.8 and 2.5 lbs. of water per pound of air dried pulp. The strong liquor going to the evaporator was considerably higher in temperature than with diffuser washing, the temperature being as high as 205° F., and represented a considerable steam savings in evaporation. Grab samples and twenty-four-hour composite samples of the pulp showed a much lower chemical loss than had been anticipated. Three vacuum pumps were installed to operate on six washers but initial operating results indicate that only one would be required. These pumps were sealed with water.

An interesting feature of the installation was the use of vertical tanks for high density pulp storage, said Mr. Wilcox. These tanks were built quite similar to the conventional blow tank, having a cone

bottom with a vertical agitator in the bottom cone. The pump discharge from the washers was 20 to 24% consistency and was put into the storage tanks without dilution. Each tank could store 50 tons of pulp, and a consistency regulator on the bottom agitator regulated the dilution water to give a pulp consistency of about 2% going to the knotters and the screens. In both the blow tank and storage tank, consistency regulators operated within .1%.

Mr. Wilcox wished it known that his description of the operation referred only to the first eight days that the washers were in service, and it was expected that better results would be obtained when the systems were completely tuned up and, also, when operating on paper grade pulp.

Mr. Wilcox also said a 4-stage washer would be placed next year somewhere in the Northwest with knotters ahead of the washers line, and likewise stated the unit was being redesigned in stainless steel for washing sulfite pulp.

Function of Free SO₂

William Pittam, who was later to learn that he had won the Shibley award, gave a paper entitled "Some Observations of the Effect of Sulfur Dioxide Concentration on

DEEP SEA FISHING WAS A SIDE ATTRACTION. This group will testify that the Pacific wasn't "pacific" that day (left to right): CARL E. BRAUN, past Chairman of Coast TAPPI and Vice Pres. and Mgr. of Hawley Pulp & Paper Co.; "RED" MACDONALD, TAPPI Sec.-Treas.; "GOB" DES MARAIS, past Sec.-Treas. of Coast Superintendents and representative of General Dyestuff Corp.; GUNNAR NICHOLSON, TAPPI Proxy and Vice Pres. of Union Bag & Paper Corp., and LARRY SMITH, Mgr., PULP & PAPER INDUSTRY.





MORE CANDIDS FROM GEARHART:

In upper left are trio of Simonds Saw & Steel men—TED WAHLSTROM, LLOYD WRAY and DAN DANIELSON. In larger picture, "Wake Em Up" Z. A. WISE is staging his annual breakfast by-play while BOB TRUE, TAPPI Coast Sec'y. of General Dyestuff Corp., sits alongside with an early morning smile.

Group at upper right (l. to r.): ED WEBBERLEY, Beater Room Foreman, Crown Zellerbach Corp., Camas; BEN NATWICK, of Camas, representative of Appleton Wire Works, and AUSTIN NICKELS, Supt., Hawley Pulp & Paper Co.

Group below them are ADOLF ORUP, Research Dir., Soundview Pulp Co.; EDWIN J. MCGILL, Supt., Rayonier Incorporated, Shelton; LOUIS VAN ARSDALE, Plant Engineer, Rayonier, Shelton; "Rover" the mascot, and JIM FRASER, Supt., Coos Bay Pulp Corp., Empire, Ore.

Lower row (left o right): BURKE B. MORDEN, Morden Machines Co., Portland; JIM RITCHIE, U. S. Pulp Producers, New York; GEORGE MILLER, Res. Mgr., Columbia River Paper Mills, Vancouver, Wash.; K. W. HENLEIN, Res. Mgr., Oregon Pulp & Paper Co., Salem, Ore.; BOB PETRIE, Portland, representative of Black-Clawson-Shartle-Dilts; his guests, Lt. Col. H. F. ELLINS and MRS. ELLINS, Toronto, and MRS. LILIAN PETRIE.

the Rate of Sulfito Pulping."

The Weyerhaeuser man discussed the function of free SO_2 from the standpoint of actual proof in the form of experimental data based on a series of cooks conducted in the experimental digester of this company's research department. Maximum cooking pressures of 120, 110, 100 and 90 pounds were used in two series with the first handling an SO_2 ratio equivalent to an initial liquor analysis of 10 percent free SO_2 , the second, identical throughout except with a drop to 8 percent free SO_2 . The variations in bleachability, effect of pressure on bleachability, and the influence of pressure on cooking time, were charted and presented for all participants to examine during the course of the discussion.

Ultimately, Mr. Pittam presented mathematical equations for the curves, presenting the results of the two series as follows:

$$P10\% = 387,700 + 80 \text{ and:—}$$

$$100.0101 T$$

$$P8\% = 16,588,000 + 86$$

$$100.01404 T$$

with T representing cooking time and P representing cooking pressure.

He set these up only to show that a mathematical relationship exists between the rate of cooking and digester pressure, and drew the conclusion that the rate of cooking is directly affected by sulfur dioxide concentration and that by integrating rate of cooking to elapsed time the mathematical constant can be determined.

He drew the final conclusion that although concentration of sulfur dioxide plays a dominant part in rate of cooking, neither the physical nor chemical properties of pulps were altered in quality sufficiently for such alteration to be detectable.

Modernizing Acid Plants

L. C. Kelley, general superintendent, British Columbia Pulp & Paper Co., Ltd., Vancouver, B. C., read a paper on "The Modernization of Acid Plants," with mention of installations at his company's two

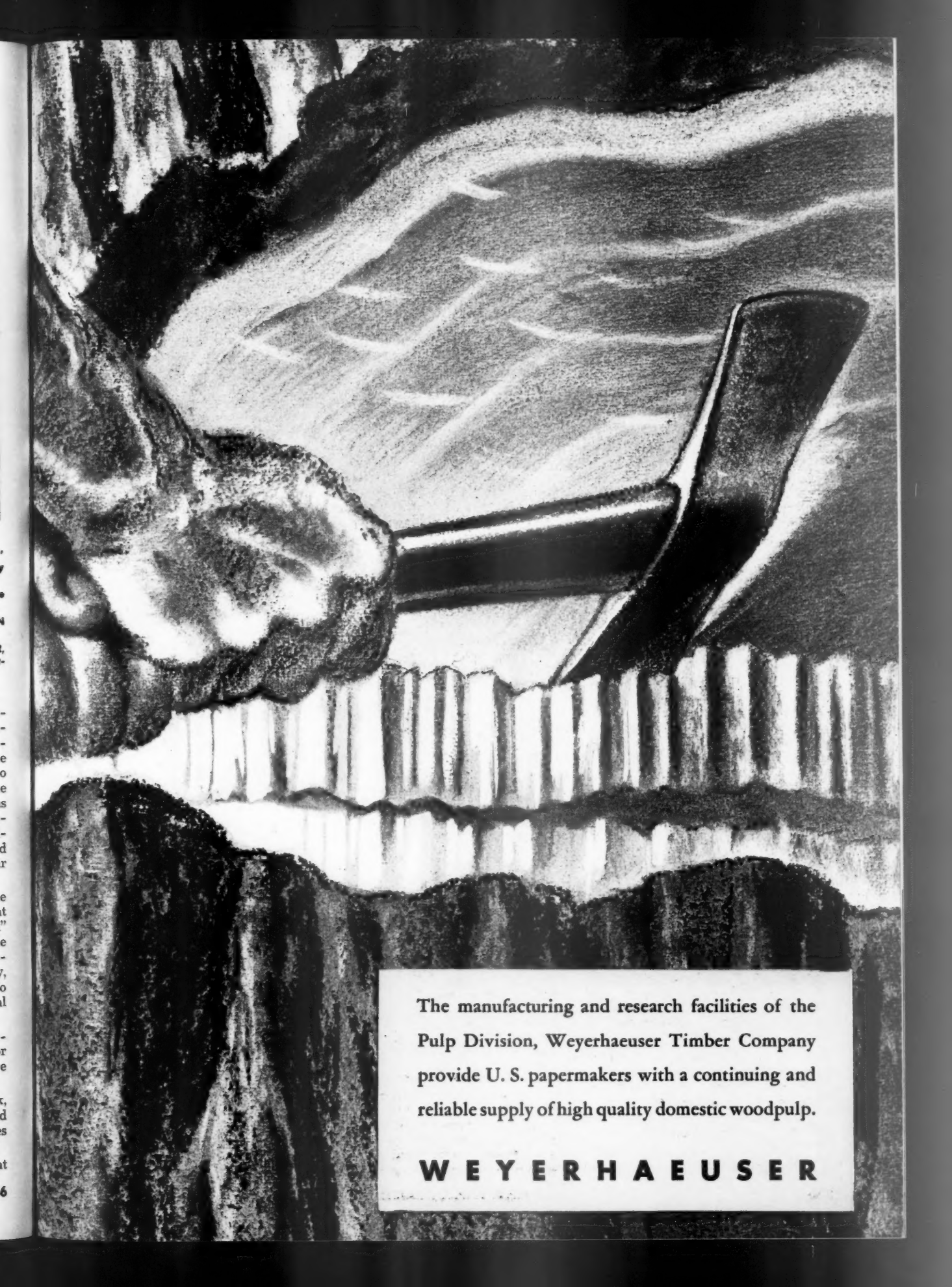
mills. Originally installed at Wood-fibre, B. C., he said, were flat burners using a cast iron header connected to iron fans which push the gas through a horizontal cooler to wooden lime rock towers, and the mill at Port Alice, B. C., a Vesuvius sulphur burner with similar equipment from there on as at Wood-fibre. He said rotary burners and combustion chambers soon took their place.

He made the statement that the modernized plants, as they exist at the two mills today, are not "ideal" acid plants because compromise must be made with limitations of location, space, equipment delivery, money available and the degree to which management permits radical departure from the conventional.

His suggestions, presented to stimulate discussion, as to equipment for improvement of an acid plant, were as follows:

Side dump gondolas for limerock, if it comes by rail; a derrick and orange peel to unload if it comes by barge.

Sulfur storage and handling as at



The manufacturing and research facilities of the
Pulp Division, Weyerhaeuser Timber Company
provide U. S. papermakers with a continuing and
reliable supply of high quality domestic woodpulp.

W E Y E R H A E U S E R

Bellingham (Puget Sound Pulp & Timber Co.) or Port Alice.

Sulfur burning furnaces adapted from the sulfuric acid industry, of which the Texas Gulf spray type is a sample.

A steam boiler in the rear end of the sulfur burning furnace as an integral part of same. The total amount of steam produced will be roughly one pound of steam per pound of sulfur burned, which will at least furnish the steam necessary to melt the sulfur and enough additional to pay off in time the extra capital investment.

No cooler except, if necessary, a water spray to bring the temperature down not below 105 degrees—110 degrees C.

Jennsen type gas fan and lime-rock towers.

Stripping the vomit pipe of the last traces of SO_2 .

Stripping the vomit stacks from the blowpits of blow SO_2 and using this for make-up water.

A steam evacuator refrigeration unit such as the Croll Reynolds, if necessary, to control water temperatures.

A pressure acid tower to build up the free to the desired level.

A low-pressure acid storage relief tank such as the Stebbins prestressed concrete type.

Last but not least in his recom-

mendations for improvement is "the proper cooking technique."

Some of these improvements were made at Port Alice and Woodfibre and others are contemplated.

"As regards sulfur per ton of pulp," he said, "there has always been quite an argument between the merits of very high free vs. a comfortable minimum. Should higher free be the goal, this can be accomplished by installation of a pressure relief tower as described by Halvar Lundberg in his articles on 'Acid Making in the Sulfite Industry' published serially in the PULP & PAPER INDUSTRY" (in issues of 1943 through most of 1945).

Joint Meeting

On Saturday, the traditional "wake-em-up" breakfast, presided over by Z. A. Wise, was followed by a joint session with the new TAPPI chairman, Mr. Gallaway, in the chair.

This started off with a paper which the author, Robert G. Misphey, assistant technical director, Central Tech. Dept., Crown Zellerbach Corp., of Camas, had modestly entitled "Some Thoughts on Rosin Sizing." It actually was much more than just "some thoughts," running the whole gamut of the fundamentals and problems connected with

this subject and, in effect, is virtually a text on it.

Rosin Sizing

Tracing the history of sizing from Illig's rosin-alum method developed in 1807 and Wurster's free rosin method of 1879, Mr. Misphey noted that "the resinate theory versus free resin theory battle still continues."

There followed a discussion of the role of aluminum sulfate in the beater and Mr. Misphey mentioned effects of electrical phenomena on paper sizing.

The author noted that there are many types of rosin size emulsions available, each having "success in certain cases but none have been found universally applicable."

In discussing pulp receptivity to sizing, he said that unbleached and semi-bleached kraft was most easily sized. Next in order he named steamed groundwood, bleached sulfite, rag and normal groundwood. He observed that hemi-celluloses have a definite bearing and beneficial results are obtained with a pulp with a high natural ash content.

Noting the usual aim of pulp makers to attain a pure cellulose, he said this was not necessarily desirable for best paper manufacture. A certain amount of mineral salt content in water is also more de-

LADIES HAD THEIR own golf tournament and their own special luncheon (right) at which Mrs. Charley Ackley presided.

Golfers in top row (left to right): MRS. MERRITT (Peg) KAPHINGST, wife of Sulfite Supt., Columbia River Paper Mills (and daughter of one of noted pioneers of Pacific Coast industry, the late D. B. Davies, former Production Mgr. for Rayonier); MRS. ERIK EKHOLOM, wife of Gen. Supt., Puget Sound Pulp & Tbr. Co.; MRS. BILL (Eva) COSTER, wife of Gen. Supt., Soundview Pulp Co.; MRS. ARTHUR DAMMANN, wife of Bristol Co. representative; MRS. LETTIE YOUNG, wife of Chief Electrician, Columbia River Paper Mills, and MRS. JACK WEIBLEN, wife of Finishing Room Supt., Columbia River Paper Mills (and daughter of Coast Chairman Ackley of Superintendents).

In lower row (left to right): MRS. G. W. CHARTERS, wife of Asst. Res. Mgr., Crown Zellerbach Corp., Camas; MRS. IRVING GARD, wife of Merrick Scale representative; MRS. HAROLD HAUFF, wife of Research Staff member, Weyerhaeuser Pulp Division, Longview; MRS. H. B. FENN, Jr., wife of National Aniline representative, and CORRA WILSON





GADABOUTS AT GEARHART (left to right): JAMES FRASER, Supt., Coos Bay Pulp Corp., Empire, Ore.; ADOLF ORUP, Research Director, Soundview Pulp Co., Everett; MRS. BERNICE OSTENSON, wife of Crown Z's Paper Mill Supt. at Camas; BILL MARSHALL of Pacific Coast Supply Co., the Golf Chairman; MRS. BEN (Opal) NATWICK, wife of Appleton Wire representative; MRS. JOHN M. FULTON, wife of PACIFIC COAST SUPPLY CO. Manager, and MRS. MARIE EKHOLOM, who won the ladies' golf and is wife of Gen. Supt. at Puget Sound Pulp & Timber Co. Mrs. Ekholm has won Whatcom County championship (at Bellingham, Wash.) a number of times and went to quarter-finals a few years ago in the Ladies' Western Open.

sirable than mineral free water. He said each section of the country requires a different sizing procedure. And he noted that use of adjuncts such as basic alumina, starches, etc., depend on local conditions.

"Rosin sizing can be destroyed or normally produced by the method of handling through the paper machine," he said, in pointing out the need of proper drying time, desirability of a nearly closed system and other factors. Even two machines in the same mill might require entirely different procedures, he said, in stressing need of individual study of conditions.

He recommended that mills consider using more than one type of sizing emulsion. The single system, he said, results in size of higher than necessary quality for some grades and less for others.

Rosin Supply Situation

In his paper on the rosin supply situation, Mr. Maguire of Hercules noted that labor shortage and other wartime factors resulted in a greater consumption of rosin in 1944-45 than the production. While working hardships on mills, the resulting government "70% use" order accomplished the purpose of stretching the supply. Although the 1945-46 season ended with one of the lowest stocks on record, the mills did not actually run out of rosin thanks to controls on consumption and export, he said.

Now higher prices and return of woods labor in the South indicate there will again be ample supplies of rosin, providing restriction on export is continued, said Mr. Maguire. The foreign demand, he said, is tremendous, but he thought it reasonable to expect shipments would be kept within bounds. He noted, as has been previously reported, that domestic consumption

restrictions have been partially relaxed, but cautioned against any speculating on future supply because of uncertainties as to government action.

Any rosin surpluses, he thought, were first likely to build up in the pale grades and he noted that prices on the Savannah market beginning Apr. 29 were well below ceilings for some of these grades for the first time in many months.

Construction Trends

Victor C. Haner, Puget Sound Pulp & Timber Co. engineer, gave a talk in which he stressed that an industrial building can be both efficient and pleasing in appearance at very little extra cost. If it doesn't create a "feeling of dignified fitness, its design is probably fundamentally wrong."

He discussed materials used in the new big hydraulic log barking plant at his company's mill in Bellingham, with particular reference to pre-cast concrete roof and floor slabs and brick tile and transite walls and also to the concrete silos for chip storage, all departures from old-time sawmill or pulp mill practice.

He also stressed the novel method of feeding chips from storage bin to belt conveyor developed in two eastern mills and at the Soundview and Puget Sound mills on the west coast, and said any new mill neglecting to give consideration to it "is making a great mistake."

The concrete silos at Bellingham, he said, were four in number, each 40 ft. in diameter, 65 ft. high, with 250-unit capacity, costing \$66,000, or \$66 per unit capacity.

Comparing 55 cent per sq. ft. pre-cast roof slabs with \$1 transite walls, he forecast that "it is a very small step to use of pre-cast wall sections."

Mr. Haner remarked on the difficulties of obtaining materials and said construction labor was, for various reasons, only about 65% as efficient as in 1939.

The modern trend in equipment design, he said, is for "finger-tip" or automatic control on all process equipment, making for more production with less effort. He suggested that the "sociological and economic aspects" of labor-saving devices "must be boldly attacked and solved before we can hope to have complete capital-labor harmony."

Trends in Bleaching

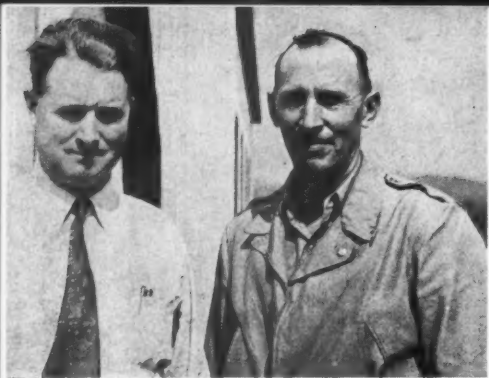
The paper on bleaching by Dr. Rue of Hooker Electrochemical Co., Niagara Falls, N. Y., recalled the first simple processes for chemical pulps 15 years ago and told how these have become more complicated and elaborate.

"Direct chlorination of pulp has become a standard part of almost every process use to bleach chemical pulps to high brightness, regardless of kind of pulp or species of wood," said Dr. Rue. "Three-stage processes, one of which is caustic extraction, are coming into use for sulfite, and six- or seven-stage processes are accepted without much question for bleaching sulfate pulps for products of high brightness and high strength.

"Bleached sulfate pulps are competing successfully with bright bleached sulfite pulps and are frequently preferred by reason of superior strength and toughness. Also, semi-bleached sulfate pulps are competing vigorously with unbleached sulfite for wrapping and bag papers."

The speaker noted that new mills are projected for the purpose of

(Continued on Page 56)



VERNON MAUERMAN (left), Engineer, and CHARLES F. MILLER, Chip Plant Foreman, Pulp Div., Weyerhaeuser Timber Co., Longview, Wash., are pictured here at log haul entry of new hydraulic barking plant in Longview. Mr. Mauerman is one of Weyerhaeuser men assigned to barking plant design and construction, having worked on the project since the first drawings two years ago.

New plant will be under direction of Mr. Miller, who was Seabee in South Pacific in this war and Navy man in World War I.

Newspaper-Backed Firm Buys Idle Puget Sound Mill

The partially equipped Cascade Paper Co. mill in West Tacoma, Wash., idle for nine years, has been purchased from Everett Pulp & Paper Co. by a newly formed company which hopes to put the mill into production within about six months. The price was known to be in excess of \$1,000,000.

The new firm, the West Tacoma Newsprint Co., has been organized by a large group of Pacific Coast newspapers for the purpose of producing an emergency supplementary newsprint supply.

With its present equipment the

mill is capable of making only about 50 tons a day of news, but this is regarded a means of assuring the newspapers of needs for profitable publication.

"We make our money, in effect, on the last two pages and as things are going now we aren't able to get enough paper for those last two pages from present sources of supply," was the way one publisher put it.

One of the big paper companies supplying west coast newspapers has given its blessing to the enterprise on the basis of merely supplementing present western newsprint supply.

A high class group of newspaper publishers on the Pacific Coast are identified with the project, at least some of whom are known to be alert to the acute problems of wood supply and of the market and price problems which paper mills face. It is understood that some of the larger papers in California and some of the smaller dailies in the northern coastal states are involved.

The paper machine in the West Tacoma mill is a Pusey & Jones 156-inch Fourdrinier with widest trim sheet width of 142 inches. It has a Westinghouse sectional drive. There are 4—12,000 ton beaters in the mill. Some other equipment had been disposed of by previous owners, but the paper machine and what remains of other equipment and the mill itself are in excellent condition as a result of capable maintenance. Water supply is adequate.

Grinder equipment has been ordered and the mill will then be able to produce the groundwood component of the necessary furnish for newsprint. Only about 10 tons per day of chemical pulp would need to be purchased.

Promoters of the venture state they are assured of an adequate wood supply from logging operators based in the vicinity of Tacoma.

Cellulose Engineers, Inc., Seattle, have been retained to handle the conversion of the mill to newsprint.

Change in Sales Manager

George Angus Davidson, sales manager of Howard Smith Paper Mills in Montreal for several years, has retired. He joined the company in 1913. W. H. "Bill" Aird is the new sales manager. He served overseas with the Canadian army during the war.

How Ontario Paper Co. Plans 20,000-Ton Newsprint Increase

Increased newsprint production of Ontario Paper Co. this year will come from two sources—replacement of the present suction couch rolls on the five machines at Thorold and the arrangement whereby the Beaver Wood Fibre Co. will put back into production their newsprint machine.

Outlining the company's plans in this connection, L. C. Anderson, manager of manufacturing, advises PULP & PAPER INDUSTRY:

"At Thorold we expect to have installed by midsummer new 40-inch diameter suction couches equipped with two-section boxes having a total width of approximately 17 inches.

"New Nash Hycor pumps, size 12 or 10, will be installed to draw the vacuum on these boxes. The

new electric motors required for these vacuum pumps are designed to operate at 2,000 volts. It is expected that an increase of 10% in production will be obtained from these improvements.

"Regarding the Beaver Wood Fibre operation, the newsprint machine of the Beaver company will be put back into production before the end of June through a cooperative arrangement with the Ontario Paper Co. Under this arrangement the Beaver company will operate the machine and the Ontario Paper Co. will furnish necessary steam."

The two mills are located adjacent to each other and will supply the Chicago Tribune-N. Y. News. North American supply of newsprint will be increased by 20,000 tons a year.

Hoyt Favors News Price Increase

At least one newspaper publisher—and a prominent one, too—believes the price of newsprint should be increased and that short-sighted publishers have forced machines into other types of production.

His name is E. Palmer ("Ep") Hoyt, new editor and publisher of the *Denver Post*, formerly publisher of the *Portland Oregonian* and for six months a high official in OWI. But he won't go so far as to favor lifting the inventory ceiling.

Said he in an exclusive interview with PULP & PAPER INDUSTRY: "As to the advisability of suspending all OPA ceilings on newsprint,

I am against it. I am also against lifting the inventory ceiling of 30 and 50 days, as I think it would be to the disadvantage of the small papers, and everybody would pay for it eventually.

"I do favor the proposed five or six dollar increase, as I think that publishers have been pennywise and pound foolish in holding down newsprint prices on a competitive basis, but I think to throw the ceiling away would be dangerous as hell. I think you ought to write a piece on the short-sightedness of newspaper publishers — it forced machines into other types of production."

Lake States Pulpwood, George Mead Reservoir Are Discussed at Green Bay

Future pulpwood possibilities in the Lake States were outlined in a talk which highlighted the spring meeting of the Northwestern Division of the American Pulp and Paper Mill Superintendents Association held at Green Bay, Wisconsin, May 17 and 18.

Long recognized as one of the most extensive holders of forest lands, the farmer is also the holder of most of the land upon which timber could be grown as a crop to restore the supply of locally-produced pulpwood for the industry, said the speaker, Fred B. Trenk, extension forester of the University of Wisconsin.

He proposed a three-fold program—(1) education, (2) demonstration, and (3) legislation—to secure the benefits to the industry of a long-range program of utilizing the forest potential of fragmentary farm lands which he estimated at a total of a quarter million acres in Wisconsin alone.

William F. Thiele, chief engineer of Consolidated Water Power and Paper Co., addressed the group on the "Wisconsin Valley Improvement Co. Reservoir System."

The two-day meeting drew over a hundred men from 12 states. The superintendents were officially welcomed by Mayor Dominic Olejniczak who paid warm tribute to their industry for the continuous prosperity it had maintained in Green Bay.

Tracing declining use of local pulpwood and increasing imports of Canadian spruce in the Lake States, Mr. Trenk said: "We are going to have to regard timber as a crop rather than as a mine."

He maintained the situation could be alleviated by large-scale planting of Norway spruce.

He also pointed to the advantages of balsam fir, a valuable pulpwood species for sulfite mills, as a timber crop once further progress had been made in the treatment of balsam seed in the pre-germination stage to hasten growth when seeded directly in the humus soil layer.

The speaker emphasized that balsam fir is fast growing and relatively resistant to deer and rabbit damage. Of the 24 species growing in the Lake States region balsam is least menaced by forest animals and it produces more spontaneous seeding than is obtained from any other coniferous species. Norway



AT SPRING MEETING of Northwestern Division of Superintendents Association (left to right): C. H. REESE, Nekoosa-Edwards Paper Co., who reported plans for this month's national convention; L. J. SMITH, Combined Locks Paper Co., Chairman of Northwestern Division; P. J. MASSEY, H. P. Smith Paper Co.; F. C. BOYCE, Wisconsin Paper and Products Co.; R. M. RADSCH, Appleton Machine Co., who presented golf and bowling prizes, and H. G. WINTGENS, Hoberg Paper Mills, Inc.

spruce, originally introduced into the region to provide windbreaks, has proved itself adaptable to tree plantation methods. Spruce plantations on heavier farm soils are averaging an annual output of one and a quarter cords of pulpwood per acre.

To accomplish the proposed reforestation and tree plantation program, Mr. Trenk suggested that the pulp and paper industry join hands with the agricultural extension services of the state college in the Lake States in an educational program to convince the farmers of the market available to spruce pulp growers.

"We can make a very good case economically for the farmer," he stated. This case, based on a wage per hour rather than annual crop profit, he illustrated by the \$1.01 hourly wage netted by a farmer and his son who made the 1945 harvest on the Wausaukee Timber Harvest Forest in Wisconsin.

To augment this educational program, Mr. Trenk proposed the establishment of a net-work of publicly-owned demonstration timber harvest forests, such as the Wausaukee forest, in the farming areas where the value of timber as a crop could be dramatized for farmers by frequent cutting of new woods growth.

The third point of his program was the enactment of legislation aimed at the prevention of harvesting of immature timber. He advocated legislation based on the principle that no tree would be cut when the average height of dominant trees was below the level at which fullest use of second growth timber is attained. He pointed out

that most previous legislation has been based on diameter of trees which protects old stands but does not further the concept of timber as a crop. Legislation of the proposed type, the speaker maintained, would benefit pulpwood operations by insuring stands with usable volume large enough to eliminate most cutting waste.

Mr. Thiele's Talk

William F. Thiele described installations and future plans for the George Mead Reservoir, located half-way between Wausau and Wisconsin Rapids, which is under construction by the Wisconsin Valley Improvement Co. Already in operation, the system is producing approximately 70,000 kilowatt hours. It is expected that with full operation and completed installations the peak will exceed 100,000. The speaker emphasized the fact that this system is privately-financed and owned. Power produced and distributed to paper mills and others will pay the cost of the project and sustain operations.

Mr. Thiele briefly traced the history of reservoir projects in the region, terming the people of Wisconsin Valley "reservoir-minded."

L. J. Smith, mill manager of Combined Locks Paper Co. and division chairman, served as master of ceremonies at the final banquet. C. H. Reese, mills manager of Nekoosa-Edwards Paper Co., read a letter from Raymond L. Barton of Michigan Paper Co., national president of the association. P. J. Massey of H. P. Smith and Co. and F. C. Boyce of Wisconsin Paper and Products Co. spoke. Prizes for golf and bowl-

(Continued on Page 70)



ELECTED AT CONVENTION In Poland Springs—See Page 17

HOMER H. LATIMER, Mill Manager, Champion Paper & Fibre Co., Hamilton, Ohio, Division, who starts this month a one-year term as newly elected President of American Pulp & Paper Mill Supts. Association.

National Geographic Buys Book Mill

National Geographic Society, Washington, D. C., has purchased from the shareholders a majority of stock in the Champion-International Company, Lawrence, Mass., according to a recent announcement by Dr. Gilbert Grosvenor, president of the Society which published the far-famed *National Geographic Magazine*.

Commenting on the new control to PULP & PAPER INDUSTRY, Theodore F. Koop of the Society said:

"The managing and operating policies will continue as heretofore. The mill has supplied all coated paper for our magazine for thirty years. This means paper for 1,500,000 copies each month to Society members throughout the United States, and this requires about forty per cent of the mill's annual output."

Champion-International has two machines, and has been rated as a 60,000-ton mill manufacturing surface coated book, litho and cover papers, machine finish and English finish book papers.

Florida Forest Post

George Mosley, forester with Rayonier Incorporated, Fernandina, Fla., was selected first vice president of the Florida Forest and Park Association at the annual meeting which was held in Jacksonville. Mr. Mosley was placed in charge of forest practices and will coordinate the views of the association with those of the state forest service in forest management and fire control.

Canadian Summer Meeting Program

The two Ontario cities at the head of the Lakes, Fort William and Port Arthur, shared the honor of being host to delegates to the summer technical meeting of the Canadian Pulp and Paper Association on June 6-7-8.

There was a good attendance at the sessions, especially from the eastern provinces, and discussion covered a wide range of subjects. During the two-day meeting delegates visited the nearby mills of Great Lakes Paper Co., Abitibi's Mission mill, Provincial Paper Co., and Thunder Bay Paper Co.

Matters of special interest were the Waterous friction log barker and the 304-inch Fourdrinier machine at the Great Lakes mill, the cooking of birch and poplar by the sulfite process at Provincial and the use of the Cram consistency regulator at Abitibi and Great Lakes for controlling the consistency of their sulfite pulp to their screens, which is an innovation in eastern Canada.

Some of the principal speakers or authors (others read their papers), were:

J. W. McKay, Welland Chemical Works, "Spray Sulfur Melter and Waste Heat Boiler."

A. H. Lundberg, G. D. Jenssen & Co., "Spray Cooling of SO₂ Gases and Modern Gas Absorption and Recovery Systems."

J. N. Swartz, H. D. Orloff and J. H. Robertson, "Improved Gear and Chemical Recovery in the Sulfate Process."

S. A. Collicutt, Powell River Co., "Conditioning of the Stone Surface on a Miniature Grinder."

W. H. de Montmorency, Pulp and Paper Research Institute, "The Effect of Reversing Stone Direction."

G. W. Hamblet, Jr., Hamblet Machine Co., "Cutting and Handling Board Sheets at High Speed."

J. T. McDonald, "The Insulation of Revolving Pressure Vessels."

R. S. Hatch, Weyerhaeuser Timber Co., "Various Sulfite Pulping Procedures Using Different Bases for Combined SO₂."

Frank F. Frothingham Sales Manager for Bird



Frank F. Frothingham, for many years manager of the Western office of Bird Machine Co. (603 Main St.), Evanston, Ill., has been appointed sales manager, succeeding F. K. Becker, formerly vice president in charge of sales. Mr. Becker was recently elected president of the company.

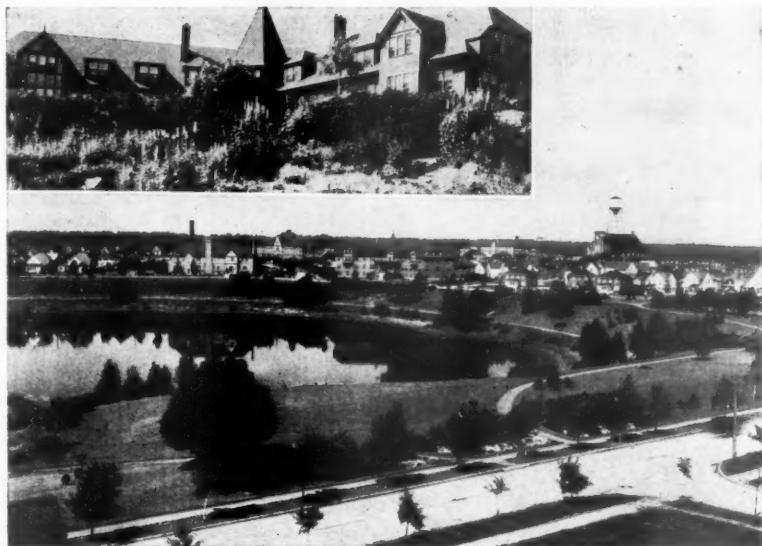
Mr. Frothingham will be responsible for sales and servicing of all Bird pulp and paper machinery. In addition to his duties at company headquarters in South Walpole, Mass., the Western office will remain under his direction.

Mr. Frothingham has been associated with Bird Machine Co. for 20 years, during which time he has become widely known throughout the industry. He has presented a number of papers at TAPPI and Superintendent's meetings.

Before he became a member of the Bird organization he was president of Boston Belting Co., manager of the Ladies Home Journal, Curtis Publishing Co., Boston office, and general sales manager of American Felt Co.

FRANK F. FROTHINGHAM, newly appointed Sales Manager for Bird Machine Co., following upon elevation of F. K. BECKER to the Presidency of the company. Mr. Frothingham will continue in charge of Bird's Western Office, now at Evanston, Ill., and will make personal calls at mills. Presumably he will be able to resume the calls on Far Western mills, too, which he customarily visited prior to the war.

"THE HOTEL PROBLEM" IN INDUSTRY COMMUNITIES



KAPUSKASING INN, at KAPUSKASING, ONT., in remote Cochrane county of Ontario where two Kimberly-Clark subsidiary companies operate. Larger view shows attractive setting for the inn, shown on farther shore.

The quality of hotels in pulp and paper mill towns is a subject of never-ending interest to executives of the companies and affiliated industries who are required to do a lot of traveling. It is not only of interest, merely, but sometimes it is a subject which arouses deeply emotional comment.

There is no end to humorous stories which industry executives and salesmen can relate regarding their experiences in mill town hotels from one end of the continent to the other.

The rigors of war, in many cases, pointed up the need of new and adequate hotels in some localities, especially a town, for instance, in which several mills are located. Many of these travelers as well as the executives of companies who must play host occasionally to large groups of visitors, are agreed that for a first class industry only a first class hotel will do—one that measures up to the importance of the pulp and paper companies themselves.

Kalamazoo Hotel

A movement is under foot in Kalamazoo, Mich., for example, by which all of the mills in that region would join together in providing a new and modern hostelry. The recent purchase of Bryant Paper Co. by Time, Inc., with the result that

numerous magazine executives are frequently visiting the city, has brought the long neglected subject to a head.

In the great little paper mill town of Wisconsin Rapids, Wis., where Consolidated Water Power & Paper Co. has for years been carrying forward gradual beautifying of the river banks, a new hotel and other landscaping improvements are possibilities of the not too far distant future.

It seems that, today, one must look to the most remote and wildest

regions of the continent for pulp and paper mill towns which have the best and most modern hotels. For instance, in some Canadian mill towns which are most difficult to reach and in some of the similarly out-of-the-way Southern U. S. towns are to be found the pleasantest and prettiest hotels visited by pulp and paper industry men or salesmen.

These travelers make the point, furthermore, that foreigners, government officials, mill customers, educators and others also visit these towns and often form opinions of the mill or the operating company by the hotel—no matter how unjustified this reasoning is, even in cases where the company has no control or ownership in the hotel.

On this page are shown two excellent Canadian milltown hotels—one planned and one in existence now—at two of the most remote communities on the continent.

The drawing shows the proposed seven-story hotel costing \$850,000, to be built at the northernmost mill town of North America—at Ocean Falls, B. C., site of Pacific Mills. Other pictures show Kapuskasing Inn, at Kapuskasing, Ont., site of Spruce Falls Power & Paper Co., and the new Kimberly-Clark Corp. of Canada creped wadding plant.

The beauties and comfort to be found at Kapuskasing Inn are not restricted because it is 450 miles north of main population centers of Ontario.

A new modern hotel is being

NEW \$850,000 SEVEN-STORY HOTEL, part of \$1,110,000 housing program sponsored by Pacific Mills, Ltd., at Ocean Falls, B. C., on which work is commencing.



built at Marathon, Ont., on the Lake Superior shore, another remote location, where the new Marathon Corp. subsidiary mill is rising.

Some of Best Hotels

Not imposing, but comfortable, are the hotels such as Rose Inn, at Crossett, Ark., site of the Crossett Industries, which includes a pulp and paper mill; Crown Willemette Inn at Camas, where Crown Zellerbach Corp. has its largest mill; the inn at Tomahawk, Wis., site of two Wisconsin mills; the Angelina hotel at Lufkin, Tex., site of Southland Paper Mills; the General Oglethorpe, at Brunswick, Ga., site of the Brunswick Pulp & Paper Co.; the hotel at Brevard, N. C., near Ecusta Paper Corp., and some others which are familiar to travelers in this industry.

In somewhat larger towns—not

dependent solely on the pulp and paper mills—there are hotels such as the Monticello at Longview, Wash., and the Francis at Monroe, La., which have made industry men comfortable. And when one gets into even large communities, as Savannah, Ga.; Mobile, Ala.; Portland, Ore., or Quebec, there is a choice of excellent hotels.

Pacific Mills Program

Paul E. Cooper, president of Pacific Mills, Ltd., announced recently in Vancouver, B. C., plans of his company for carrying out a new construction program at Ocean Falls, involving expenditure of more than \$1,100,000.

Most of this construction is for the purpose of increasing and improving residential facilities. Largest item is the seven-story hotel, which will be the fourth largest in

British Columbia. A women's dormitory, a movie and 15 duplex houses also will be built.

The hotel will be of monolithic reinforced concrete construction for the frame, slabs and outside walls, with interior partitions of gypsum blocks or structural clay tile. The face of the building will be finished in waterproof stucco and part of the lower story will be faced with split granite boulders with log porch construction above, imparting local color and warmth.

The hotel will provide full scope for social activities of the community. The kitchen will be equipped with all modern appliances. A large mechanical bakery will be installed, sufficient to provide bread supplies for the entire Ocean Falls community. The four upper stories of the hotel will contain rooms for 320 occupants.

The Outlook for Southern Forest Industries

By I. F. ELDRIDGE

Retired, Former Regional Survey Director Southern Forest Experiment Station, New Orleans, La.

By 1920, the end of the great virgin forest of the South was plainly in sight. The peak of the region's lumber production was reached a few years later and by 1934 the Forest Survey showed that more than 85% of the virgin forest was gone forever. Perhaps never before in the history of man was so great an expanse of virgin forest cut and shipped away in so short a time. A tremendous price to pay indeed, but the South will always remember what it bought, thankful that it had the price demanded.

In the South today we have a new young forest to deal with. A forest though understocked, ill kept and full of grief, tremendous in extent and even greater in its potentiality. It occupies 60% of the South's surface. It is found in almost every county in greater or lesser degree. Almost every farmer in every section of the South has more timberland than fields within his boundaries; it surrounds every town and city and for miles on end it borders every road, waterway and railroad. As a land use, forestry—good, bad or indifferent—bulks larger in the South than all other uses combined.

In this young forest, 20 thousand sawmills are at work producing over 40% of the Nation's lumber. The pulp and paper mills in the South supply 80% of the Nation's kraft paper products. In the production of poles, cross ties, veneer and cooperage stocks, southern forests rank

high. From our longleaf and slash pine trees and stumps come practically all of the rosin and turpentine used in this country. Never, even in its heyday, did the South's magnificent virgin forest contribute values as great as those now flowing from its relatively inferior second-growth timber stands.

In the decade before the World War II started, a great many forest owners throughout the South began to appreciate the possibilities of forestry and dedicated their holdings and pointed their operations toward growing and harvesting a succession of timber crops on the same land. Millions of acres of formerly neglected private forest land have thus been put under some degree of forestry management. If this trend continues now that the war is over at the accelerating rate it showed before the war began, there is no room for doubt that we can balance our timber budget. During the war, under an insistent and growing pressure for timber products of all kinds and the temptation of high stumpage prices, conservation had gone by the board and there was disturbing evidence of forest destruction at hand in every section of the country.

In looking about for the raw materials upon which to base an industrial expansion, it is soon apparent that none is more outstanding than the South's 200 million acres of forest land.

But, we have already noted that these forests, present annual growth is less than the drain against it—how can they support a greatly increased industrial use?

Joins Research Lab Of Crossett Paper Mill

John E. Parnell has joined the staff of the research laboratory of the Paper Mill Division, Crossett Industries, Crossett, Ark.

Mr. Parnell has a M. S. Degree in chemical engineering from the University of Alabama. After leaving college he worked for a short time with the Gulf States Paper Corp. at Tuscaloosa, Ala., and then served as assistant chief chemist for the North Carolina Pulp Co., Plymouth, N. C., for five years.

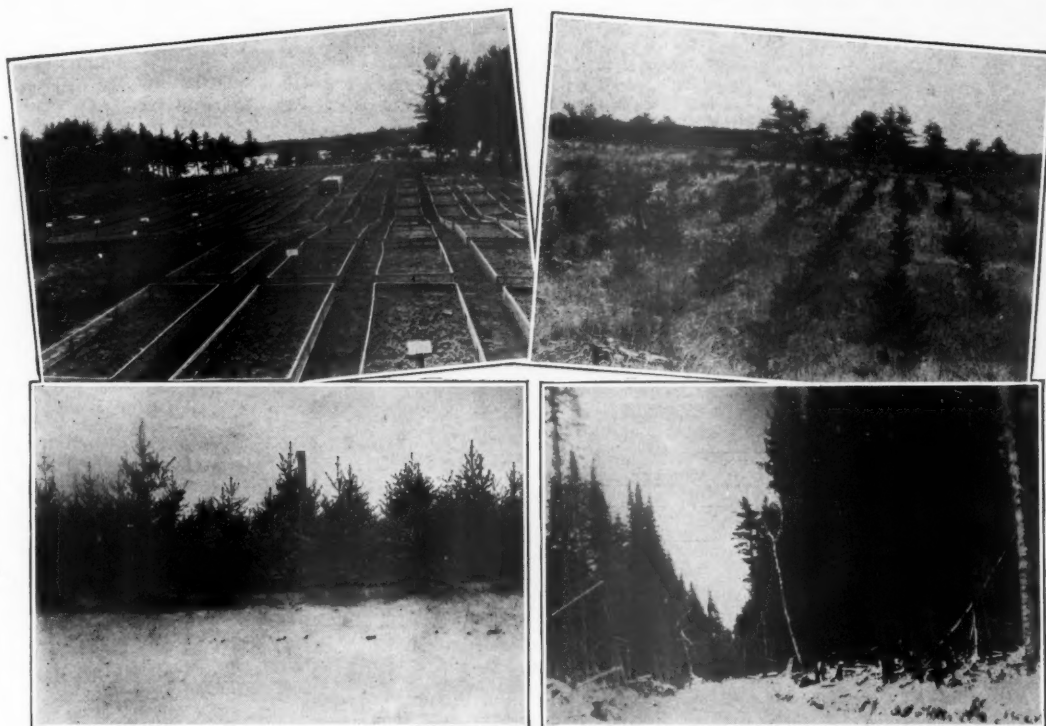
During the war he worked for the Chemical Warfare Service at Huntsville, Ala., and the Clinton Engineering Works at Oakridge, Tenn.

Canal Required For New Florida Mill

Dredging of a canal 150 feet wide and with a 300-foot turning basin will be affected by the Hudson Pulp and Paper Corp. at its Palakta, Fla., mill which is under construction. Application for approval by the District Engineer, U. S. Army Engineering Corps, was filed by the company. In addition to the dredging of the canal, the company proposes to improve navigation conditions in Rice Creek and to construct a wharf.

The construction of the new mill will be completed in May, 1947, according to L. V. Forbeck, engineer in charge of the construction for Merritt, Chapman & Scott. The mill requires five miles of railroad, 3½ miles of roads and a 1300-foot navigable canal.

Wisconsin Forests Rejuvenated



Nearly all the pulp and paper mills on the Wisconsin River now have holdings in Wisconsin which are being used for forestry purposes and are under sustained timber management set-ups. Yet a generation ago, many thought Wisconsin was almost through as a timber producing state.

Far-sighted and aggressive action by such companies as Nekoosa-Edwards, Consolidated Water Power & Paper, Tomahawk Kraft, Marathon and Rhinelander, has reversed a disastrous trend. In some areas, land that was cleared hopefully for farmers, but where farmers went broke because the land just wasn't meant for them, these bits of Mother Earth were turned back to the job they were best suited for—growing trees.

Twenty years ago this year, Nekoosa-Edwards Paper Co., of Port Edwards, Wis., established its first pulpwood plantation and this activity has grown until now it owns in excess of 100,000 acres, half of it within vision on a good day from the mills' smokestacks.

This company was taking a risk when it started this program, betting, in effect, that forest taxation would be revised and that there would be fire protection established.

Here's how spruce and balsam grows in Wisconsin when given a chance!

Upper left: Nekoosa-Edwards Paper Co. seedlings in nursery.

Upper right: A three-year old growth of Nepeco trees.

Lower left: Same plantation at seven years of age.

Lower right: Logging road through this company's timber in Keweenaw county, Michigan.

The State of Wisconsin came through handsomely, and both bets were won. It established two central Wisconsin forest protection districts and it even passed a constitutional amendment so tax reform could be enacted, encouraging long-term forest culture.

Nekoosa-Edwards statisticians have figured their mills need 625 sq. mi. of productive timberlands to be adequately and permanently supplied. They now have 400 sq. mi., supervised by seven foresters. Over 22,000,000 trees have been planted on 16,000 acres.

J. E. Alexander is president and general manager of Nepeco. F. G. Kilp is woodlands manager; C. E. Heyer, assistant woodlands manager.

Urfer, Hawley P. A., Dies

K. G. Urfer, purchasing agent of Hawley Pulp & Paper Co., Oregon City, Ore., died suddenly early in June. Mr. Urfer was 45 years old.

Montana National Forest Wood for Wisconsin Mills

National forest timber in Montana is now supplying Thilmany Pulp & Paper Co., Kaukauna, Wis., and Mosinee Paper Mills Co., of Mosinee, Wis., both sulfate pulp and paper operations.

According to an official bulletin from the Northern Region of the U. S. Forest Service, in Missoula, Mont., the contracts which the two Wisconsin mills have with a pulpwood supply company will "assure a continuous market for pulpwood" from the Lewis & Clark National Forest at White Sulphur Springs, Mont.

The sale of 4,200 acres of lodgepole pine timber in the national forest was made to MacGillis & Gibbs Co., Milwaukee, which has contracts with Thilmany and Mosinee. The sale includes 30,000 cords of pulpwood along with wood for other uses, the total being valued at \$150,000.

Nepeco Ex-Secretary Goes to Moscow

Miss Ruth Briggs, secretary in the engineering department of Nekoosa-Edwards Paper Co., Port Edwards, Wis., until she joined the WAC, is out of service and a member of the American embassy staff in Moscow.

One of the first five WAC members to go overseas, Major Briggs served as secretary to Lt. Gen. Walter Bedell Smith, who planned the African and Normandy invasions. General Smith has been appointed U. S. ambassador to Moscow and named Miss Briggs to his staff.

She is the step-daughter of Franz H. Rosebush, head of Nekoosa-Edwards personnel department.



F. WILLIS SMITH (left), who recently became President and General Manager of Coos Head Timber Co., which supplies wood to Empire, Ore., Division of Coos Bay Pulp Corp. His brother, **C. WYLIE SMITH** (right), is Vice President and General Manager of the two Coos Bay Pulp Corp. mills which are subsidiary units of Scott Paper Co.

The Smith brothers of the pulp and sawmill industries of the Pacific Coast are together again for the first time in about a dozen years.

These Smith brothers bear no relation that we know of to the famed gentlemen with the luxurious whiskers and both of them are clean-shaven and both are now industrial leaders in the Coos Bay region of southwest Oregon, which has become one of the busiest forest industry areas of the nation with the last great stands of virgin timber in the United States not far in the hinterland—that is, the last easily accessible, big virgin timber which is not locked up in government reserve.

F. Willis Smith, who is 36, recently received his honorable discharge from the U. S. Army after serving as an infantry lieutenant colonel on General MacArthur's staff, accompanying the Pacific leader through his campaigns that led back to Manila.

He is now president and manager of the Coos Head Timber Co., which on May 1 leased the sawmill of Coos Bay Pulp Corp., property at Empire, Ore. He and Charles M. Duecy, recently released from the Navy, and now secretary-treasurer of the new firm, have put this saw-

Together Again in Oregon

mill back on full production, employing about 85 men on two shifts.

On day shift, the sawmill cuts about 130,000 bd. ft. of lumber, and on night shift it produces about 125,000 bd. ft. of logs for the adjacent pulp mill, which is the equivalent of about 250 units of chips.

The pulp mill, as most of our readers know already, is one of two western mills under supervision of C. Wylie Smith, brother of Willis Smith and two years his senior. The former is vice president and general manager of Coos Bay Pulp Corp., subsidiary of Scott Paper Co. and operating company for unbleached sulfite mills at Empire (70 tons per day) and Anacortes, Wash. (90 tons per day).

The lumber mill also is a source of hogged fuel for the pulp mill. Because of its remote location and other factors, this mill is not likely to follow the trend in the west away from hogged fuel to other fuels, necessitated by shortages of the former.

Superintendent at the sawmill is Ted Rowell, who formerly was superintendent of one of the first hydraulic log barking plants in the Far West, at the Weyerhaeuser pulp mill in Everett, Wash. Hydraulic barking, which cuts down wood loss, is one of the big factors in creating the hogged fuel shortage. In the small Coos Bay operation, it seems uneconomic, at least at present, for a shift to hydraulic barking.

It is interesting for visitors at this mill

to note the unusually high degree of whiteness in the unbleached pulp made here, which is primarily due to the fact that this mill is fed almost exclusively with high grade spruce from the southwest Oregon forests. Now that war is over, the much more economic method of shipping this pulp to Scott mills in the east by the water route through the Panama Canal has been resumed. The pulp goes into towel and tissue.

The Smith brothers are both graduates of Washington State College and both married Everett, Wash., girls. Wylie has three children and Willis one daughter. Wylie spent a number of years in pulp mills on Puget Sound, while Willis was one of the key men at Weyerhaeuser Timber Co.'s Mill B in Everett for eight years before his three years in the army. Mr. Duecy also was in Everett in connection with loggers before his navy service.

The Smith brothers now live with their families in the busy community of Coos Bay, which formerly was known as Marshfield, and is at the head of the bay about four miles inland from the two mills at Empire. Another adjoining town forming a triangle with Coos Bay and Empire, located at a bend in the long bay, is North Bend. With many big lumber companies moving into this region of Oregon from Washington state, these are exciting days in that region.

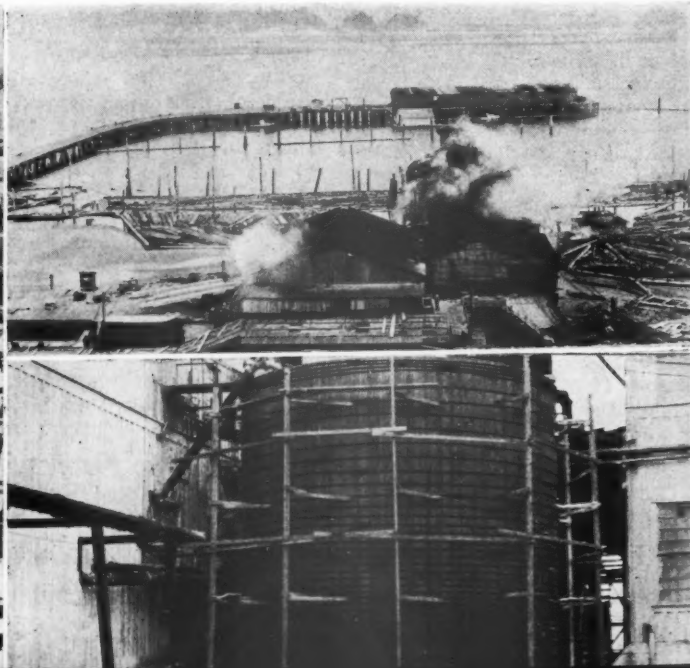
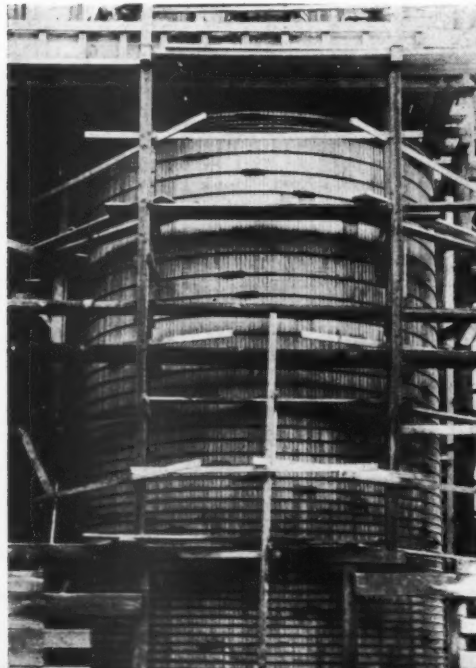
James Fraser is superintendent at the pulp mill and C. G. Reynolds is the chief chemist.

Left view: New acid reclaiming tank, 30 ft. high by 20 ft. diameter, at Coos Bay Pulp Corp., Empire, Ore.

Upper right: This picture shows part of sawmill adjoining pulp mill and the long dock near mouth of Coos Bay from which ships leave periodically for east with cargo of sulfite pulp for Scott mills. This picture taken from top of pulp mill digester house.

Lower right: New stock blending tank, 25 ft. diameter and 24 ft. high.

Both of these tanks were constructed with high grade Douglas fir. It is interesting to note that because it was impossible to get all 30 ft. lengths for acid tank, some shorter lengths were used, with end joints of lead flange fittings. This marks the first time National Tank & Pipe Co., Portland, Ore., ever constructed such a tank in this manner and probably is one of the first of its kind in the industry.





PULP PAPER

DOMESTIC
EXPORT
IMPORT

BULKLEY, DUNTON & CO.
INCORPORATED

BULKLEY, DUNTON PULP CO., INC.

BULKLEY, DUNTON PAPER CO., S. A.

BULKLEY, DUNTON PAPER
(FAR EAST) CO., INC.



Whether you want to buy, sell, export or import paper or pulp, one of the three separate but closely integrated Bulkley, Dunton companies is ready and fully equipped to help solve your purchasing or distribution problems.

Our century old experience, a large staff of experts and the unequalled combination of supply sources and outlets are factors which no sales or purchasing executive should overlook.

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295 Madison Avenue, New York 17, N. Y.

Offices and representatives in 42 cities in the United States, Latin America, Europe and the Far East.

Highlights of Institute's Conference of Executives

The annual executives' conference of the Institute of Paper Chemistry heard reports from the staff which emphasized some of the current well-known postwar difficulties—lack of housing for students, lack of paper for printing scientific reports and a decrease in the number of scientists who are available to write articles.

A major portion of the program at Appleton, Wis., on May 16 and 17 was presented by the Institute staff, led by Dr. Otto Kress, institute director, and dealt a discussion of expansion in the industry and trends toward greater conservation, more automatic controls in manufacturing processes, etc.

Gen. W. J. "Wild Bill" Donovan, wartime head of the Office of Strategic Services, was a guest speaker and he urged a world intelligence service independent of any world police. Another guest, Gen. G. F. Doriot, head of military planning for the Quartermaster Corps, praised the Institute for its research in packaging in wartime and urged that this research continue. The Institute now has its new building and department for packaging research in operation.

Mortenson Returns To Florida P. & P. Co.

A. O. Mortenson has returned as chief operating engineer for the Florida Pulp and Paper Co., Cantonment, Fla., after being released from service in the U. S. Army corps of engineers.

After working during vacations at the Brown Paper Co. in New Hampshire, Mr. Mortenson started his career in the industry following graduation from high school. He spent a number of years in Lauretide, Price, Brothers, Great Northern, International Paper, and Wayagamack and Gilman (Vermont) Paper Co. mills, and was engineer for St. Regis at Oswego Power Corp. After a tour with General Electric in 1936, he became electrical engineer at Union Bag and Paper Corp., Savannah. Soon after construction was completed he became maintenance superintendent and assistant to the late Ed Mayo, dean of the kraft industry, who was general superintendent.

Wartime engineering posts followed from 1941-1946. As superintendent of the first 30,000 K.W. floating steam power plant launched by the Army, he assisted in their organization, shakedown, and training. He took two units to Belgium. Although harassed by constant bombing, these power units maintained electrical service.

Construction Progresses On New K-C Sulfate Mill in Canada

Construction crews are rushing preliminary work on Kimberly-Clark's proposed sulfate pulp mill near Schreiber on the northern shore of Lake Superior in Ontario.

Temporary headquarters are at Schreiber, but the mill will be located at Terrace on the Aquasabon river, 10 miles east of Schreiber.

Diamond drillers were engaged during May in foundation testing, and work is well under way on the buildings that will house workmen and protect supplies and materials as delivered.

Ontario Hydro Commission will construct a \$5,000,000 power plant three miles west of Terrace to supply the various communities



A bigger and better Paper Mill Men's Club Hi-Jinks for Sept. 20 at the Riviera Country Club, Santa Monica, Calif., is the goal of IRVING DAMON (above).

Mr. Damon is Hi-Jinks Chairman this year. He represents the Northern Paper Mills of Green Bay, Wis. The Hi-Jinks is one of the paper industry's big events.

Figures Talk For Florida Protection

W. T. Edwards, president of the St. Joe Paper Co., Port St. Joe, Fla., in accepting the 1946 chairmanship of the Florida State Chamber of Commerce forestry division, on May 11 said Florida's forests are being cut at the rate of 2,900,000 cords annually, as against a growth of only 2,000,000 cords.

"This disastrous condition," he said, "is the result of man-made fires, and of inadequate reforestation."

Scholarships to Encourage Sound Forest Practice

New evidence of increasing interest in sound forest management on the part of manufacturers and users of forest products was given recently with the announcement that Union Bag & Paper Corp. has established two forestry scholarships at the George Foster Peabody School of Forestry of the University of Georgia, and two forestry fellowships at the School of Forestry, Duke University.

D. J. Hardenbrook, vice-president of Union Bag & Paper Corporation in charge of Woodlands operations, announced the scholarships. The fellowships involve cash awards of \$3,400. Scholarship winners will receive \$400 during each school year of the four-year course. The total grant by Union Bag to cover forestry scholarships will be \$800 for the first year; \$1,600 for the second; \$2,400 for the third, and \$3,200 thereafter.

Capt. Guettler Returns To Fibre Making Processes

Capt. B. A. Guettler, Army Ordnance, has been mustered out after four years in the service, and has returned to his post as secretary of Fibre Making Processes Inc., in charge of the Chicago office. He was on the Coast last month to visit his father, H. W. Guettler, president of the company in San Francisco.

Olmsted Sees Shortage Of Lithograph Paper

There will be a shortage of lithograph paper until late 1947, George Olmsted, Jr., president of the S. D. Warren Co., Boston, told the lithographers convention at Atlantic City recently.

Addressing more than 500 at the Marlborough-Blenheim Hotel, Mr. Olmsted told the convention that the present production of book paper, including offset paper and excluding bonds, ledgers and other types, is about 1,900,000 tons annually. He estimated the future demands to be about 2,400,000 tons, but he believed this would be met by an annual production of 2,750,000 tons. He stated that the purchase of mills by publishers had so far created about a 5% loss in the availability of offset paper for lithography.

Tell "Home Folks" Is Brown Co. Policy

The immediate and future plans of Brown Company in relation to the communities of Berlin and Gorham, N. H., were the theme of a talk given recently to the Men's Supper Club at the Congregational Church in Gorham by Wentworth Brown, vice president of the company.

Mr. Brown has been giving a number of such informal talks to acquaint the local public with the modernization plans—particularly with reference to the new sulfate mill.

Chinese Foresters See Western Operations

The 14 Chinese forestry technicians who came to the United States last July for special training under the auspices of the Yale University School of Forestry were visiting forest industries in Washington, Oregon and California late in June, prior to sailing for China from San Francisco on July 3.

Purpose of the project has been to help China modernize and industrialize her timber industry and to eliminate wasteful practices in the use of wood.

E. O. Merchant Moving To California Home

E. O. Merchant, for many years secretary of the Groundwood Association, the Newsprint Manufacturers Association, and the Salesman's Association has cleared out his desk at 122 East 42nd Street, New York City, and headed for California and retirement.

"It's been on my mind for a long time," he told PULP & PAPER INDUSTRY last month. "And now that the war is over I felt I could wind up my work with a clear conscience."

The well known secretary of the three associations has been connected with the industry for more than 20 years. He will settle in a suburb near San Francisco Bay, according to his present plan.

Gulf States Service Pins

E. J. Babin, employe in the diffuser department, Gulf States Paper Corp., Tuscaloosa, Ala., was awarded a 25-year service pin this year. Mr. Babin entered the employ of the company when the mill operation was located at Braithwaite, La.

Harvey C. Mappin, assistant sales manager of the Gulf States Paper Corp., completed 25 years of service on April 20.

PAPER BAGS FOR GARBAGE DISPOSAL

(NEWS ITEM: The modern way to dispose of kitchen waste is a paper bag made to fit a newly-designed container.)

A disposable paper bag fitted into a wire frame inside a ventilated, chemically deodorized refuse can is the latest method of garbage disposal. You merely step on a treadle. Up comes the bag, weathertight, odorless and ready for clean and easy disposal.

There are thousands of new uses for paper . . . bags for vacuum cleaners . . . drums for chemicals . . . cans for food . . . plates for printing . . . each new use calling for new standards of lightness and toughness, new standards of quality in performance. New responsibilities—new opportunities for the Pulp and Paper Industry.

The Puseyjones Organization is now devoting itself completely to the design and construction of Paper-Making Machinery built to new high standards of speed and efficiency, and to the modernization of existing machines.

Among the new machines under construction by Puseyjones are three of the largest and fastest Fourdrinier Machines, one for book and high grade printing, one for white paper for bags, and one for Kraft liner board; also one Cylinder machine of record size and speed for the manufacture of floor covering felt. Other machines are under construction for the manufacture of M. G. Kraft specialties, facial tissues and high grade bristols.

Puseyjones Engineers will welcome the opportunity to work with you in solving production problems.

THE PUSEY AND JONES CORPORATION

Established 1848. Builders of Paper-Making Machinery
Wilmington 99, Delaware, U. S. A.



John A. Flynn of Hooker Tacoma Plant Passes

John A. Flynn, works manager of the Tacoma, Wash., plant of Hooker Electrochemical Co., died May 27 at a hospital after being stricken with a heart attack.

Al Hooker, western sales manager of the company, recalled that Mr. Flynn had been greatly interested in furthering all kinds of sports in Tacoma and had helped organize a Tacoma professional baseball team.

The sports editor of one of the Tacoma papers paid a tribute to Mr. Flynn, saying he never turned down a civic benefit drive and was "a true friend to Tacoma and its athletic youth."

He came to Tacoma in 1928 during construction of the plant and has served as its works manager until his passing. He is survived by his widow.

Represents Hooker

Hooker Electrochemical Co., Niagara Falls, N. Y., has assigned Charles Y. Cain to sales territory in the vicinity of Chicago.

Stanton in Public Relations

Al Stanton, for the past 12 years in the traffic department, Crown Zellerbach Corp., San Francisco, has been transferred to the industrial and public relations department as assistant to W. D. Welsh.

Reg Baker Speaker

R. A. Baker, purchasing agent of Powell River Co., Vancouver, was one of the speakers at the Pacific Northwest Conference of the Purchasing Agents' Association in Seattle recently.

Coltons Form Company

Edgar L. Colton, just out of the Army, and son of L. A. Colton, vice president, Zellerbach Paper Co., has formed a partnership with his brother, Arthur Colton, in the paper mill representative business, 320 Market St., San Francisco.

Heads Junior Chamber

Herbert M. Chisholm, advertising manager, Blake, Moffitt & Towne, has been elected to the board of directors of the San Francisco Junior Chamber of Commerce.

Bonestell Adds Space

Bonestell & Co., San Francisco, have taken 40,000 sq. feet additional warehouse space across Howard street from their main office, and four new salesmen have been added to the force.

H. S. Bonestell, Jr., president of the company, is back at his desk after a visit to a number of Pacific Northwest paper and pulp mills.

Colonel Burchett Named B. C. Pulp Wood Mgr.

Lieut. Colonel E. P. Burchett has been appointed woods manager for British Columbia Pulp & Paper Co., Vancouver, B. C., which operated pulp mills at Wood-fibre and Port Alice, B. C. Colonel Burchett served overseas with the Canadian Forestry Corps and returned to the west coast only recently.

Before the war, Col. Burchett was with his own organization, Rounds, Burchett Logging Co., at Ramsay Arm, and prior to that was logging superintendent for Merrill, Ring & Wilson at Rock Bay.



FRANCIS H. ELDRIDGE, who has been elected President of F. C. Huyck & Sons, Albany, N. Y., succeeding the late Woolsey H. Weed. A grandson of the founder, F. C. Huyck, and nephew of his three sons, Mr. Eldridge has been Vice Pres. and Gen. Mgr. since 1938.

New Source of Wood For Coast Pulp Mills

In line with its policy for maximum utilization, Canadian White Pine Co., H. R. MacMillan subsidiary sawmill on the Fraser river between Vancouver and New Westminster, B. C., will soon be converting practically all its fir and hemlock "waste" into material for pulp and paper mills.

MacMillan Industries, Ltd., operating a plywood plant adjacent to Canadian White Pine, is committed to a similar program which will take effect during the coming summer, according to Bert F. Hoffmeister, general manager.

At the Canadian White Pine plant a Carthage chipper and screen are being installed, and at the plywood plant Vancouver Engineering Works, Ltd., has a contract for the assembly of a screening unit.

The pulpwood chips that would otherwise be burned as slabs, sawdust or other fuel, will be barged to the consumer pulp mills. No contracts have yet been closed in this connection, but there is expected to be a ready demand. Canadian White Pine and MacMillan Industries use about 500,000 board ft. (1,000 cords) per day of Douglas fir, with some hemlock.

Fairbanks-Morse Northwest Distributors

The Seattle branch of Fairbanks, Morse & Co. has announced that the Milwaukee Machinery Co. of Portland, Ore., has been appointed exclusive distributor for the complete line of Fairbanks-Morse turbine pumps. Their pump department will be headed by W. H. Perry, who was with the Dallas, Texas, branch of Fairbanks, Morse & Co. for years.

Aslin Moves to Seattle

Keith M. Aslin, for several years sales representative for the Portland office of Crown Zellerbach Corp., has been transferred as sales representative to the Seattle office of the same company. He was given a going away party March 28.

KVP's Paper Washcloth Sales Snowballing!

The cover picture and story we published last month on the new paper washcloth produced by Kalamazoo Vegetable Parchment Co., is getting bigger!

KVP reports that 40 hotels are now using it and, best of all, the early ones are reordering. Proved just as good as cloth for most purposes, it is considerably cheaper.

Montana Mill Is Further Delayed

It is now learned that construction of the proposed kraft pulp and paper mill (150 tons each) at Polson, Mont.—which has been discussed for many months—will be held in abeyance until after the same company builds lumber and plywood plants.

President W. F. Emory of the Idaho-Montana Pulp & Paper Co. of Polson, announced an increase of company directors from 7 to 9 following a meeting on May 15. Thomas Taylor, Missoula, was elected as a new member of the board; the ninth directorship was left open. Others on the board are: John L. Campbell, Missoula, and J. J. Reese, Columbia Falls, vice presidents; Lyle W. Wright, Missoula, secretary-treasurer; G. M. Moss, Whitefish; D. N. Wilson, Miles City, and Ben Zimmerman, Poplar.

Construction of a lumber mill and plywood plant, at a cost of \$600,000 is planned to begin within two months. The pulp mill, estimated to cost \$3,000,000, is to wait completion of the first named units.

Sidney Roofing & Paper Orders Hydropulpers

Sidney Roofing & Paper Co., Victoria, has placed orders for two Hydrapulpers manufactured by Alexander Fleck, Ltd., Ottawa, in association with Shartle Bros. and Dilts Machine Works, according to announcement by Logan Mayhew, managing director.

Capacity of the two machines will exceed 100 tons per day and installed cost will approximate \$70,000. They will be used in conjunction with the company's present beater-room equipment which consists of seven beaters and five jords.

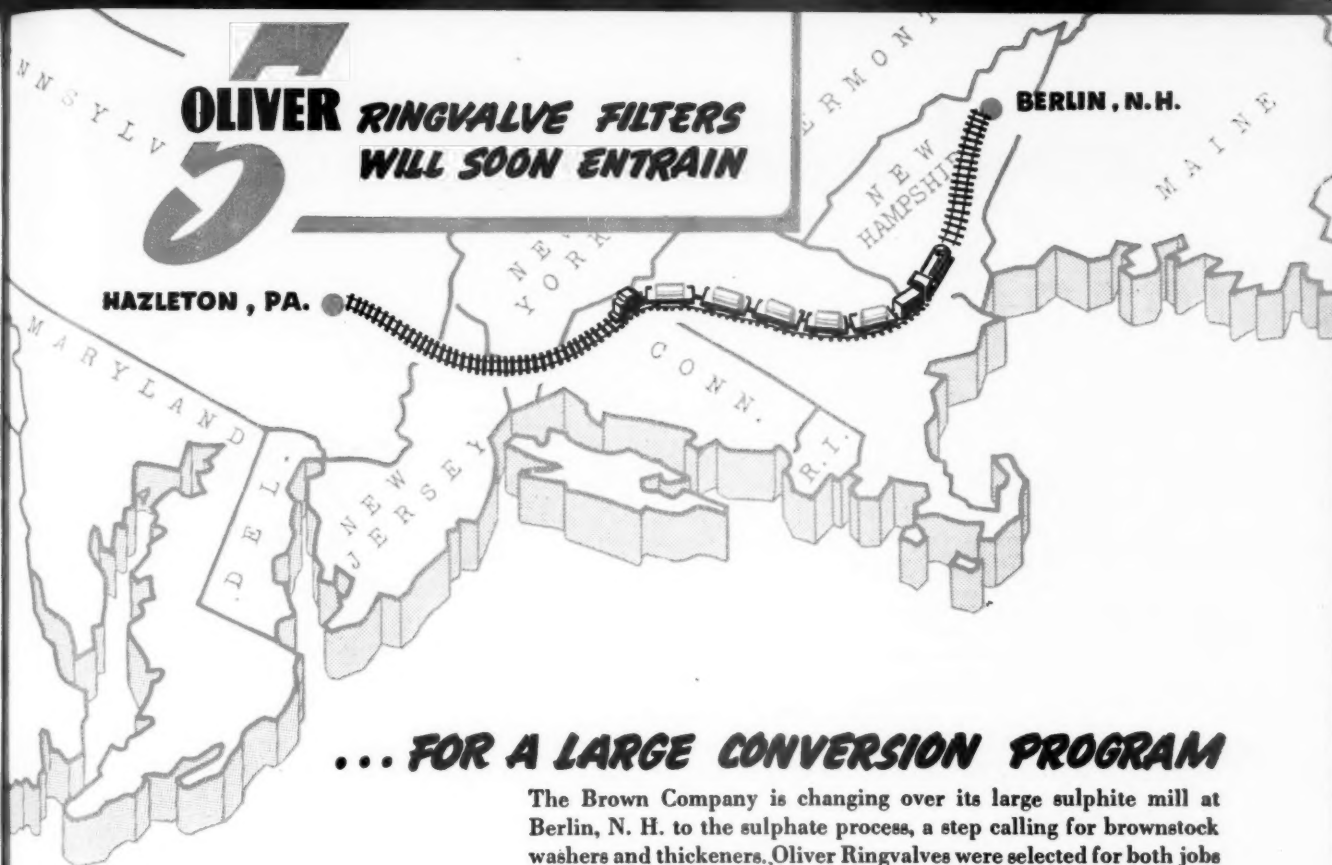
Paul Kellogg Praises Budworm Control Plan

Paul Kellogg, general manager of the Newsprint Association of Canada, told PULP & PAPER INDUSTRY recently that Canadian government plans for an insect control board to meet the menace of the spruce budworm epidemic were significant. The epidemic threatened to reach "the proportions of a national disaster," he said.

"This action marks a significant precedent and recognition of the national obligation to co-operate with the provinces and private industry in protecting the source of the pulp and paper industry's wealth—the forest," said Mr. Kellogg.

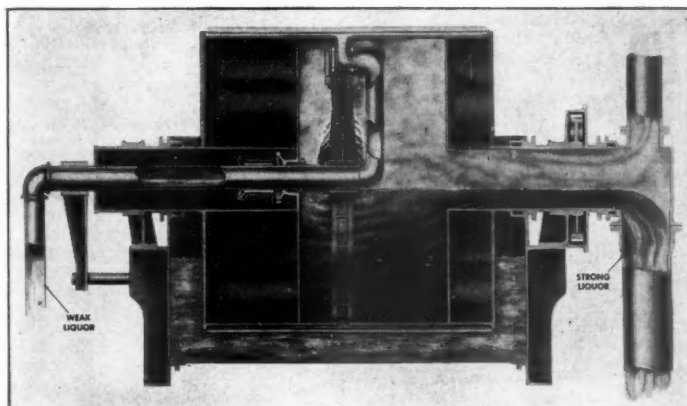
During a recent visit to Vancouver, B. C., Mr. Kellogg was guest of President Harold Foley and the Powell River Co. at an informal luncheon meeting with newspaper publishers. On his way west he addressed the Canadian Club in Fort William, Ont.

OLIVER RINGVALVE FILTERS WILL SOON ENTRAIN



... FOR A LARGE CONVERSION PROGRAM

The Brown Company is changing over its large sulphite mill at Berlin, N. H. to the sulphate process, a step calling for brownstock washers and thickeners. Oliver Ringvalves were selected for both jobs because they offered several distinct advantages, including these:



- no internal piping
- low resistance to flow, assuring high hydraulic capacity and ability to handle peak loads
- simplicity and accessibility of the ringvalve; ease of inspection
- operable with barometric leg, if desired

The Oliver Ringvalve Filter is doing an outstanding job of washing and thickening. The Brown Company is one of the latest in a growing list of pulp and paper manufacturers who recognize this.

If you are planning a modernization or expansion program calling for washing of sulphate or sulphite stock, or for thickening, look into the merits of the Oliver Ringvalve Filter. As a starter, send for Folder F-106.



FILTERS SINCE 1907

More than 18,000 Filters in Industry Generally
1400 of these Filters in Pulp and Paper

New York 18, N. Y., 33 West 42nd Street

San Francisco 11, California

Chicago 1, Illinois, 221 N. LaSalle Street

Western Sales Division: Oakland 1, California, 2900 Glascock Street

Canada: Sales & Manufacturing Representative, E. Long Limited, Orillia, Canada

Factories: Oakland, Calif.

Hazleton, Pa.

Orillia, Canada

Melbourne, Australia



Weren't His! — —

Just plain pearls are sometimes found in oysters. But pearls of wisdom, and a grand sense of humor for good measure, are to be found in the North Carolina district court decision, printed here in full.

One W. R. Hampton, plaintiff, sued the North Carolina Pulp Co., Division of Kieckhefer Container Co., of Plymouth, N. C., for \$30,000 for fish he had never caught or owned. That's the way U. S. District Judge I. M. Meekins summed up the case, in dismissing it. The opinion was rendered two years ago but we only recently received a copy of it.

But let Judge Meekins state the case as he analyzed it (the pleasure is all yours!):

Motion to Dismiss

"This is a civil action at law brought by the plaintiff against the defendant in which the plaintiff seeks to recover from the defendant damages in the sum of \$30,000.00 for the alleged wrongful diversion and destruction of fish in the navigable waters of the Roanoke River near Plymouth, North Carolina. A motion to dismiss the cause for failure of the complaint 'to state a claim upon which relief can be granted' was heard by me at Raleigh in Term and thereafter briefs were filed in due course.

"Well, fish is the subject of this story. From the fifth day of the Creation down through the centuries, some of which lie behind us like a hideous dream, fish have been a substantial factor in the affairs of men. After giving man dominion over the fish in particular, naming them first in order, reserving unto Himself only one certain fruit tree in the midst of the Garden (Genesis 1:26, 28; 2:17, 3,3, 4) and Satan smeared that — the wretch. Whatever else we may think of the Devil, as a business man he is working success. He sat in the original game, not with one fruit tree, but with the cash capital of one snake, and now he has half the world grabbed and a diamond hitch on the other half (The Eminent American Modernist).

"Great hunters lived before Nimrod, who was a mighty one before the Lord (Genesis 10:9), and great fishermen before Izaak Walton whose followers are as numberless as the sands of the sea — not counting the leaves of the forest, as if anybody ever did or could, except the quondam Literary Digest, which polled itself to death in the late summer and middle fall of 1936.

"The most notable group of fishermen of all time was that headed by Peter, the impulsive Apostle, and his followers Thomas, Nathaniel, the sons of Zebedee, and two other Disciples, seven fishermen

in all — a working majority of the Twelve (John 21:2, 3).

"Considered solely as a food product, the fish have unlimited possibilities — quantitative and qualitative. We are told that a few little fishes and seven loaves, five loaves and two fishes, according to St. Luke, were more than sufficient to feed a hungry multitude of four thousand men, together with the women and children present, and of the fragments there were seven baskets full of fish (Matthew 15:30). Quantitative.

"Professor Agassiz, the eminent Harvard scientist said: 'Fish is a good brain food.' One wrote to know 'in what quantities should it be taken?' The great scientist wrote back: 'In your case a whale a day for thirty days.' Qualitative.

"Fish have their place in song and story. In song, from the nursery rhyme: 'Little Fishes in the Brook,' to the huge leviathans that forsake unsounded deeps to dance on sands (Two Gentlemen of Verona). In story since the dawn of civilization and the imagination of man began to build romances and tell tales full and fruity. He was more wag than skeptic who said: 'In all the world there are only three really great fish stories — Admiral Noah, Commodore Jonah and Captain John Smith.' Herbert Hoover added the fourth when, fishing in Nevada, he pulled a 25-pound trout from the green waters of Pyramid Lake (Desert Challenge - Lillard).

"Noah built an ark so many cubits high, wide and long. It had one door in the side, and one window in the top twenty-two inches square (Gen. 6:14, 15, 7:12,20). What ventilation! We are told it rained forty days and forty nights and all the mountains were covered with water. We know that Mount Everest is 29,140 feet high. Since it was covered by the flood, the water reached an altitude of more than 29,140 feet. Divide the altitude by forty and we find that the average rainfall was more than 700 feet per day. How's that for dampness!

"Apart from the Biblical account of the flood, many nations have vivid accounts of floods in which all the people, except a chosen few, were destroyed. One account, that points this story, is a fable about a flood in ancient India. A fish warned Manu that a flood was coming. Manu built a ship and the fish towed it to a mountain and thus saved everybody (Encyclopedia Brit.) We can laugh at this fable without fear of condemnation here and damnation hereafter. That was not our flood.

"Jonah, like all the orthodox Jews of his time, thought Jehovah was a local Deity. Jonah did not like his assignment to Nineveh and in an effort to side-step it he took passage on a ship at Joppa for Tarshish and fled from the presence of the Lord. The Prophet thought that if he could get into another jurisdiction he would be safe. However, before he crossed the boundary line into Tarshish,

Jehovah pulled down on him with a double-barrel tempest and a muzzle-loading leviathan (Jonah 1:4, 17). When he found himself a prisoner for three days and three nights in the belly of the great fish that the Lord had prepared, Jonah began to think things over. We all do when our 'take a chance' does not pan out as we hoped. The net result was that the Prophet, after repenting of his disobedience and praying forgiveness, was allowed to go ashore. 'The Lord spake unto the fish, and it vomited out Jonah upon the dry land.' This was before the advent of the camera enthusiast, else we might have been fortified with an authentic photograph of the minor Prophet walking ashore with the lower jaw of the whale for a gang-plank. The eminent American Modernist said he was rather inclined to think that Jonah proved too tough for his whaleship's digestion and that in a fit of acute ptomain poisoning, the cantankerous old Prophet was cast forth.

"Capt. John Smith, in the minds of many people, is more a joke than a myth. However, patient and interesting investigation has led me to the conclusion that he was not only a great Englishman, but a very great Englishman: that he was not only a great man, but a very great man: that he was good, useful and sane and did a very great world service. Measured by all the standards of constructive achievement he was essentially a World Man. That Capt. John Smith is less a myth than a joke is one of the glaring anomalies of history. Perhaps the raconteur had it in mind to emphasize his facetiousness by fact: to contrast his shadow with substance — his fancy with truth.

"The skeptic may scoff and the modernist may moderate, but the story of Noah and the story of Jonah are enduring torches that lighted the way of man in his struggle upward through the immensity of the Shadow and now as then guide the fumbling fingers of the trembling hand as with the establishment and strength of Jachin and Boaz (1 Kings 7:21).

"Divested of the insistence of the Fundamentalists on the verbal inspiration and infallibility of the Bible, and accepted in the light of reason, which examines and explains, the story of Noah is the greatest statement on the importance of preparation ever penned by mortal hand. In thunder tones we are warned: in time of peace, prepare for war; in the days of ease and luxury and laissez-faire, remember that evil days are ahead; in the fat years prepare for the lean ones just around the corner. Always be ready 'to flee from the wrath to come.' (Matthew 3:7).

"Likewise, the story of Jonah is the greatest statement on fidelity to duty, hard and inexorable, that ever fell from the lips of man. It shouts forth the consequences that follow lapses from duty through wilful disobedience or



IS DISMISSED!

otherwise. 'Duty,' said General Lee, 'is the most sublime word in the English language.'

"The fish industry is among the foremost in world trade. Indeed, in some countries it is the chief occupation of the people and the main source of national income. Through the ages it has developed a lore and nomenclature peculiar unto itself. What is more expressive of failure than, 'A water haul?' What more charming password for an Ananias Club than, 'What a whopper?' What better synonym for discomfort and disgust than 'Fisherman's luck,' though coarse in translation — classic in application. And where is the lawyer who has never gone on a 'fishing expedition?' Who wants to 'fish in troubled waters?' A 'whale' of a bargain is a big one. 'Land shark' suggests Shylock, and Shylock is a type. They are synonymous and offer a perfect illustration of a distinction without a difference. Well known is the man 'with the codfish eye,' and everybody knows that 'fishy smell.' All these terms are as well understood by the public as are the terms bulls and bears of the stock exchange. 'Codfish tongues' and 'codfish sounds' means one and the same thing and are interchangeable terms in the trade.

"As it is the biggest fish that always breaks the hook or bites the line in two, so, here, the huge sum of \$30,000 is asked as compensation for fish that were never caught. I can remember when that sum would buy a lot of fish. I have seen six-pound roe shad retail for five cents apiece and cured herrings sell for two dollars a thousand, 120 pounds of shad for \$1 and five herrings for one cent.

"Yes, I am fully aware that my fall from the woollack; my break over time's old barrier growth of right and fit (Browning), my reluctance to 'plod on with the solemn brood of care (Gray), and my impatience of 'professional solemnity' (Chesterton) may cause the bigwigs of the bar to scowl down their displeasure. So be it. Permit me to interrupt myself:

"Wigs were introduced in the Courts of England in 1670. A little more than a century ago the modern article was invented, and is made of the manes and tails of horses in the ratio of five white strands to one of black. The advantage is that it maintains its permanent wave without the aid of curling irons and oil. The disadvantage is they were almost prohibitively expensive (Newton on Blackstone). I resume.

"I have often observed that the bigger the wig, the wigger, and the louder the roar and thunder in the index (Hamlet). With majestic mien, wrinkled front and prone brow, oppressive with its mind (Browning), one bigwig, with a slight shiver, asks another: 'Influenza?' Then

another with emphatic sniff asks: 'John Barleycorn?' The answer is, 'Neither'—I am sound in limb, wind and withers and as dry as Shadrach, Meshach and Abednego when, with their hair unsinged and with no smell of fire passed on them, they walked out of Nebuchadnezzar's burning fiery furnace and were each forthwith raised to an high estate in the province of Babylon (Daniel 3).

"O well, now, yes, of course, the circuit court gives me a lot of trouble. But 'hit ain't as bad as it mought be.' If I am not reversed in more than nine cases out of ten, I feel from fair to middling. And if I draw ten straight, that does not send me to bed as even one reversal does some of the gentlemen of the bench, state and federal, so I have heard. Nor do I waste time explaining how and wherein the circuit court 'got all balled up and reversed me. That is what circuit courts are for — to correct the mistakes of district judges — otherwise there would have been no compelling need to justify their establishment, except, the need to protect the supreme court against a deluge of appeals.

"When I see a bigwig infused with self and vain conceit, as if this flesh which walls about our life were brass impregnable (Richard II), I think of Charles James Fox, who, when looking at a portrait of Lord Chancellor Thurlow, his full-bottomed wig falling bountifully to his shoulders and giving him that appearance of sagacity for which he is remembered, said: 'No man ever was so wise as Thurlow looks,' and but for the unimpeachable integrity of Charles Lamb I might well doubt his observation that, 'lawyers were children once.'

"There is a good story going around about a plaintiff who sued his city in tort. A manhole on the sidewalk was left open and unguarded. The plaintiff fell into it and was severely injured. The city interposed the plea of contributory negligence for that the plaintiff was drunk when he fell into the hole. On cross-examination the plaintiff admitted that he had had one or two, possibly three, small ones (the usual maximum on the witness stand) and that he might have been feeling good. When the plaintiff rested, the defendant moved for judgment as of non-suit. The nisi prius judge promptly granted the motion and signed judgment accordingly. An appellate justice, speaking for the court in a reversal opinion, precisely one sentence long, said: 'A drunken man is as much entitled to a safe street as a sober one, and much more in need of it.' This equals: 'You can't unscramble the eggs as said North Carolina's great chief justice, Ruffin.

"Far be it from me to bandy civilities with my superiors in learning, but after a

round with the May act I think a judge is entitled to a chuckle if he can; that it is pardonable now and then to intersperse a little human interest in the tedious search for judicial maxims and precedents that bind. 'One laugh,' said Charles Lamb, 'is worth a hundred groans in any state of the market.'

"I invoke equity, which does not depend upon the length of the chancellor's foot, notwithstanding the learned John Selden said it did, and set up: the weight of years and the weariness of service. I shall not further prolong this prologue, but here upon this bank and shoal of time, I'll jump the life to come (Macbeth) and proceed to consider the questions involved in the cause before me for determination.

"Let Us Face It"

"The plaintiff, in substance, alleges that he is now, and has been since 1911, the owner and possessor of those two certain tracts of land, situate on opposite sides of the Roanoke River, and known respectively as the Kitty Hawk and Slade Fisheries: that the properties are ideally located for the business of fishing and have for a number of years during the fishing season been operated for that purpose by the plaintiff and his ancestors in title, expensive equipment having been placed and maintained thereon for the proper and profitable conduct of such business; that, from time immemorial, great quantities of fish of the kinds specified have been accustomed, during the spring of each year, to make their way from the ocean through the Albemarle Sound, and thence into the fresh water spawning grounds in the upper reaches of the Roanoke River; and that, by reason of this annual migration of fish, plaintiff's fishing business, and his Kitty Hawk and Slade Fisheries, have been 'principally and particularly valuable.'

It is alleged that the defendant is the owner of a boundary on the Roanoke River situate below the plaintiff's property which the fish, entering the river in their annual migration to the spawning grounds, are compelled to pass before reaching that portion of the river running between the plaintiff's properties; that, during the period referred to in the complaint, the defendant has maintained upon the boundary a plant for the manufacture of sulphate pulp bleached and unbleached; that, in the course of the manufacturing operation, during the three years immediately preceding the institution of this action, the defendant has from day to day discharged into the waters of the Roanoke River, opposite its plant, a large volume of poisonous and deleterious waste and matter injurious to

the fish then in passage to the spawning grounds, with the result that the annual migration of the fish upstream has been interrupted or diverted and large quantities of them have been destroyed; and that, as a natural consequence thereof, the plaintiff's business and the usufruct of his property, during each of the three years have greatly diminished — all to the plaintiff's great and lasting damage in the sum of \$30,000.00.

"Measured by these allegations, it is not open to question that the acts of the defendant were palpably wrongful. They were indeed, in violation of various criminal statutes of the states, designed to conserve the public good. If, then, upon indictment, the acts charged were admitted or established, no court could hesitate to pronounce the defendant guilty of the creation and maintenance of a public nuisance and impose the maximum penalties of the statutes as are therein provided. But the right of the plaintiff to recover damages for this alleged wrong presents a far different question. In a case of pure tort, the wrongful is responsible for all the damage directly caused by his misconduct, and for all indirect and consequential damages, resulting naturally and probably from the wrongful acts, which are susceptible to ascertainment with a reasonable degree of certainty. Damages which are not the natural and probable result of the act complained of, but which are contingent or merely possible, or based upon a conjectural probability of future loss, and so beyond the scope of reasonable determination, are too remote and are not recoverable. *Newsome vs. Telegraph Co.*, 153 N.C., 153; *Bowen vs. Harris*, 146 N.C., 385. It is well settled that in actions by private individuals, based upon the creation or maintenance of a public nuisance, there can be no recovery, even of nominal damages, upon the mere establishment of the wrongful act. In such cases it is essential to the plaintiff's cause of action that he show an appreciable injury. *McManus vs. Railroad*, 150 N.C., 655.

"At the outset, therefore, I am confronted with the inquiry as to whether, in his allegations of injury and damage, the plaintiff has brought himself within the requirements of these rules. In other words, are the damages alleged by the plaintiff the natural and probable consequences of defendant's wrongful act, capable of ascertainment with reasonable certainty, or are they merely contingent or possible consequences based upon a conjectural apprehension of events?

"If it be assumed that a portion of the fish diverted or destroyed would otherwise have been caught by the plaintiff, the question still remains as to the proportion and kind of these oviparous denizens of the silent deep which would have made their way into plaintiff's seines or nets. The answer to this question is more than difficult; it is obviously impossible with any reasonable degree of certainty. The plaintiff, doubtless, would be able to show his catch during preceding seasons. But experience joins with common sense in teaching that the result in one season affords no criterion of the result in others. The truth is that nothing in the field of industry is more uncertain or variable than the business of fishing, or the profits to be derived therefrom in any given period. Success or failure depends upon such a



A. C. McCORRY, whose appointment as General Superintendent of Kraft Pulp Div., St. Regis Paper Co., Tacoma, Wash., is announced by Walter DeLong, Vice President and Manager of that division and a Director of the parent company.

Mr. McCorry was formerly Pulp Mill Superintendent but in his new position has charge of both production and recovery. The latter operation was directed by J. M. Ruck, who has joined an eastern mill.

T. M. LINDLEY, formerly General Foreman, has been appointed Assistant Superintendent by Mr. DeLong.

Mr. McCorry came west in 1928 from the Marathon mill at Ontonagon, Mich., in 1928 and was with Longview Fibre Co., until moving to the Tacoma mill in 1936. Mr. Lindley was at Port Townsend, Wash., before joining St. Regis.

variety and diversity of contingencies—the eccentricities of climate, unanticipated seasonal changes, the clarity and temperature of inland streams, the whims and vagaries of sun and wind and tide, as is illustrated by what happened on Sea of Tiberias in obedience to the command: 'Cast the net on the other side of the ship' (John 21:6). Through the operation of these natural forces millions of shad and herring, which may have spawned in one season in the upper Roanoke River, may spawn the next in some other fresh water stream far removed from the menace of plaintiff's reticulated snares. By reason thereof, many a promising and hopeful season has ended in disaster and the business of fishing, in any given stream during any given period, has been reduced to an unpredictable gamble.

"As previously stated, in actions in tort, the damages recoverable, whether direct or consequential, must flow naturally and reasonably from the wrongful act alleged. I am of the opinion that the attempt to so estimate and segregate the damages in this case would involve a misty maze of conjecture and speculation as unprofitable as calculating the mechanical value of a cubic mile of pea-soup fog off the Grand Banks of Newfoundland.

"While these considerations seem to point unerringly to the solution of the question considered, I am not disposed to rest my decision upon this weakness in the plaintiff's case. For there is, I think, an even more patent and funda-

mental defect. It is uniformly held in North Carolina, and generally elsewhere, that, in order for a private citizen to sustain an action predicated upon a public nuisance, he must establish an injury, which is not only appreciable, but special and peculiar to himself, differing not only in degree, but in kind from that common to the public. *Pedric vs. Railroad*, 143 N.C., 150 N.C., 655; *Rayburn vs. Sawyer*, 135 N.C. 328; *Pruitt vs. Bethel*, 174 N.C. 454; *Manufacturing Company vs. Railroad*, 117 N.C. 579; *Gordon vs. Baxter*, 4 N.C., 470; *Dunn vs. Stone*, 4 N.C., 241. And while the courts of North Carolina have been alert in such cases to administer relief where an injury peculiar to the complainant has been shown, they have been equally zealous and alert in denying relief, where the injury alleged, upon studious consideration, has been held to be merely of the kind suffered by all citizens alike. Particularly is this true where the nuisance considered was initially of a public nature, and did not become so merely by reason of an aggregation of private injuries so widespread or so long continued as to constitute a public menace. *McManus vs. Railroad*, supra. The rule is that no private individual may have relief in law or equity from the actual or threatened consequences of a public nuisance; the exception relates only to those who are able to show an appreciable injury peculiar to themselves.

"This case falls, I think, within the rule and not within the exception. The plaintiff alleges no invasion of his soil, no obstruction of his right of ingress or egress, no interference with the movement or installation of his nets, seines or other fishing equipment, no dissemination of noxious odors or disease bearing insects destructive of health or comfort, no corruption of the surrounding atmosphere or of his private wells or springs, nor other injury of a kind recognized as warranting a recovery in an action based upon a public nuisance. *Surratt vs. Denis*, 199 N.C. 757; *Gray vs. High Point*, 203 N.C. 756; *Pedric vs. Railroad*, supra; *M. Manus vs. Railroad*, supra; *Rayburn vs. Sawyer*, supra; *Pruitt vs. Bethel*, supra; *Manufacturing Company vs. Railroad*, supra; *Gordon vs. Baxter*, supra; *Dunn vs. Stone*, supra.

"True, it is alleged that defendant's wrongful acts constitute a trespass, as well as a nuisance, and that the usufruct of plaintiff's business and property has been seriously impaired—'usufruct' being used, manifestly, in the sense of profit. But the first of these allegations is obviously a conclusion of the pleader, while the latter must of necessity be referred to defendant's wrongful diversion or destruction of the fish. Otherwise no casual connection is discernible between the wrong-doing alleged and the consequences experienced, and the complaint is fatally defective. *State vs. Whedbee*, 142 N.C., 770; *State vs. Fitzgerald*, 18 N.C., 408. Stated concisely, the alleged injury consists in the diminution of annual revenues from the plaintiff's business and property; the alleged wrong in defendant's diversion or destruction of fish in the Roanoke River, through the daily discharge into that stream of poisonous and deleterious matter.

"The complaint is fatally defective for the reason that the plaintiff did not own either the river or the fish therein. Both, upon the allegations and implications of the complaint, belong to the state. It is true that the plaintiff had the right to

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fish in the river, and to appropriate to his own use the fish so taken therefrom. But the plaintiff had not reclaimed the fish in question. Moreover his right to fishery was neither several nor exclusive. Nor was it incidental to his riparian ownership, but a right held in common with the public. *State vs. Glenn*, 52 N.C., 321; *Skinner vs. Hatrick*, 73 N.C., 53. To illustrate; a trapper operating muskrat traps in the great Dismal Swamp may maintain an action for damage to or destruction of his traps by reason of fire wrongfully set out by another. But it can hardly be said that the trapper could maintain a claim for diminution of profits by reason of the actual destruction or the necessitated change of range of the rats. He has no right of possession. Here, the plaintiff does not seek damage for injury to and loss of his traps, that is to say, injury to and loss of his nets, seines, boats, lands, buildings and other necessary equipment, and for the obvious reason that the wrong he complains of, by the very nature of it, could not produce such injury or loss. The plaintiff seeks only to recover for diminution of his profits by reason of the alleged wrongful diversion and destruction of fish in which he had no right of property, and precisely for the same reason that the trapper had none in the rats. It seems to me the analogy is perfect.

"If, therefore, the plaintiff has sustained an injury, then so has every citizen of the state. If the plaintiff may maintain this action, every citizen of the state may maintain a like action for the same wrong.

"Careful consideration of the briefs and authorities cited, supplemented by independent research, constrains the conclusion that the plaintiff may not recover for an injury to property in which he had no vestige of special interest. Having failed to bring himself within the terms of the exception, he is bound by the rule.

"This conclusion is further necessitated by the decisional law of the state. In *Dunn vs. Stone*, 4 N.C., 241; after stating the general principle by which actions of this character are controlled, the court expressly held that the plaintiff, a riparian owner of the Neuse River, was not entitled to maintain the action for the reason that he had sustained no peculiar injury through the obstruction of fish in their upstream passage to his fishery.

"I cannot agree that this decision has been rendered obsolete by statutory prescription of a right to sue in like cases. N. C. Code, Sec. 894.

"In many cases, concededly, the North Carolina courts have sustained recoveries, upon dissimilar facts, based upon a public nuisance. But no case has been cited, nor has research revealed one, in which the application of the rule in *Dunn vs. Stone* has been questioned. On the contrary, as well since as before the enactment of this statute, *Dunn vs. Stone* has been cited by the North Carolina courts as embodying the law in actions of like character.

"I am not impressed by the argument that the authority of this decision is destroyed by its hoar austerity. As to its age: the chief evidence offered by the Fundamentalists in the defense of the verity of the Bible is its antiquity—that it has withstood the assaults of unbelievers for two thousand years, unshaken and unmodified.

"I am loath to renounce the Old in

order to accept the New. I believe in the fine-grained truths that have been established by the world's best life—sacred and secular. We use them without a thought of their antiquity, although countless epochs and generations of men went to make them. There is a beautiful ivory mammoth tusk sticking seven feet out of the frozen ground in Alaska which the Indians have used for centuries as a hitching post. We, too, hitch up to the solid truths which serve our daily convenience, although embedded in the past — firm as the Rock of Ages.

"Moreover, the plaintiff seems to find no fault with the law of property in animals *ferae naturae* because of its antiquity. When all the animals, except fish which, for obvious reasons did not take passage in the ark, were safely on board and the door closed and barred, Noah had them under subjection, having reduced them to possession. After a cruise of 150 days, Noah let them all out, in the 601st year, on the 27th day of the second month thereof, and they scattered over the face of the earth, each after its kind. From then until *Dunn vs. Stone* was decided, and even until now, the legal right in and to animals *ferae naturae* has been and is precisely the same — no change. Should *Dunn vs. Stone* therefore be ignored because of its age, and the law itself which it upholds, dating back to the very beginning of recorded events, be given a coat of many colors? To do so would be much like a physician who eases the pain but ignores the cause.

"As to its austerity: The plaintiff in his reply brief cites *State vs. Oliver*, 70 N.C., 60 and says: 'So far as this plaintiff is concerned it is immaterial whether *Dunn vs. Stone* be considered as overruled entirely and expressly * * * or simply ignored in its implications denying damages to riparian owners. The result is the same and it is manifest, as said by the late Judge Settle in *State vs. Oliver*, 70 N.C., 61, the courts have advanced from that barbarism.'

"Upon examination I found that *State vs. Oliver* was a criminal case dealing with a defendant for wife-beating. He interposed the defense that he used a whip no larger than this thumb. He was convicted (convicted?) and sentenced. He appealed. The supreme court affirmed, and Mr. Justice Settle, speaking for the court, in an opinion about as long as a marble, said: 'We may assume that the old doctrine that a husband had a right to whip his wife, provided he used a switch no larger than his thumb, is not the law in North Carolina. Indeed, the courts have advanced from that barbarism until they have reached the position that the husband had no right to chastise his wife, under any circumstances.'

"It is a far cry from the barbarism of wife-beating to the diversion of fish, which have next to no nervous system, swimming in the navigable waters of the Roanoke River. To insist that *State vs. Oliver* has any point here is as useless as an effort to create a hiatus in a hole. And I see nothing in the present case that impedes the world's advance or that suggests the repeal of the laws that in our father's day were best.

"Nor am I impressed with the suggestion that *Dunn vs. Stone* is rendered negligible by the fact that it emanated from a one-man court — Chief Justice Taylor. It is nevertheless the pronouncement of the highest court of North Carolina and therefore binding in this

jurisdiction. *Erie Railroad vs. Thompson*, 304 U.S., 64.

"I am of the opinion the motion should be allowed and the action dismissed. It is so ordered and judgment will be entered accordingly.

(Signed) I. M. MEEKINS,
U. S. District Judge.
Done at Elizabeth City, N. C."

New Westinghouse Equipment for Mill

Several improvements at the Watertown mill of Knowlton Brothers have been announced by the company.

These include installation of a new variable speed drive for one of the paper machines, which was engineered and built by Westinghouse, and six new transformers and switch gear room, which are also Westinghouse produced.

The plant, which is almost entirely electrified, also installed a new steam plant consisting of a 375 h.p. B&W Boiler and a Westinghouse stoker, for use in heating, drying and processing raw material.

R. C. Griffith has been appointed the new plant engineer, according to E. W. Clarke, general manager

Dynas Co. Head Predicts Swedish Exports

Shipments of Swedish pulp ranging from 500,000 to 700,000 tons may be expected to bring some relief to the paper shortage in this country in the course of the next six months in the opinion of John Ekman, head of the Dynas Co., one of the largest pulp manufacturers of Sweden, who arrived in San Francisco recently.

Mr. Ekman and his daughter, Mrs. Kerstin, arrived aboard the motorship *Bio Bio*.

Mr. Ekman is making a survey of American paper markets, and planned to travel overland from San Francisco to New York.

Bag Factory Capacity Doubled at C-Z Mill

Doubling the capacity of the bag factory is one of the important post-war modernization projects under way at the Port Townsend, Wash., mill of Crown Zellerbach Corp.

Six new bag machines will double bag output and employment in that department, Resident Manager E. W. Erickson said. Two of the six machines have been installed and are in operation, and the other four are to be installed by the end of the year.

Manager Erickson said the post-war program calls for general modernization of the plant to improve efficiency and working conditions.

Two new Dorr clarifiers have been ordered to replace present settling tanks in an improvement amounting to practically a revamping of the entire caustic room.

Other new work planned includes installation of a set of Goslin-Birmingham evaporators in the recovery room to replace worn-out equipment, and installation of a new washer and three new washer drums.

A new B&W-Tomlinson boiler, Type H, 150 tons capacity, went into operation in December. This was the third B&W-Tomlinson installed in recent years, others being of 90 and 120 tons capacity.

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Pacific Paperboard Boosts Output 50%; Frayn Heads New Converting Plant

Rebuilding, redesign, installations of equipment, and alterations of operational set-up as it affects employees, are all factors in increased production of Pacific Paperboard Co., Longview, Wash.

The wood mill, destroyed by fire last summer, has been rebuilt to incorporate two three-pocket grinders instead of the former single unit. Capacity of the mill has been doubled, with a daily output of 35 tons of groundwood pulp per day on a dry basis.

The No. 2 board machine likewise has been rebuilt and an increase in capacity from 100 to 150 tons per day for the entire plant has thereby been secured. Installations which have aided in this increase include a Save-all and a Shartle-Dilts Hydropulper. The mill now is turning out some 4000 tons of liner board per month. Two-thirds of the output is being sold currently; the remainder is utilized in the company's own Longview converting plant where Richard L. Frayn, formerly connected with the Frayn Printing Co., Seattle, Wash., has re-

cently been placed as manager.

K. C. Gordon, named as superintendent and production manager, instead of operating as in the past with four bosses, now has four assistant superintendents under him, each of whom assumes full charge of all machine, beater, and wood mill operations during his period of duty. These are: William Brill, Orville Latimer, Arnold Maahs and George Pietila.

Other additions or returns in personnel include Everett E. Flood, vice president of the company, recently discharged after four years of service with the Air Service Command with which he attained the rank of Major, and David J. Flood, a master sergeant at time of discharge, with less than two years in combat service, but with an extended period of service with the U. S. Army Engineers as district engineer, Kodiak, Alaska, before enlistment. David J. Flood won the bronze star and other citations with the forces in the South Pacific. Not previously with the Pacific Paperboard Co., he now heads the engi-

neering department, in charge of construction.

Ocean Lake Reports Get Into Print Again

The Ocean Lake, Ore., weekly newspaper recently published a locally-inspired article saying "plans are going forward rapidly" for a pulp and paper mill in North Lincoln county, Ore., for one of the big operating companies.

More than one big company owns considerable timber in that coastal area, but obvious handicaps are lack of adequate harbor or railroad.

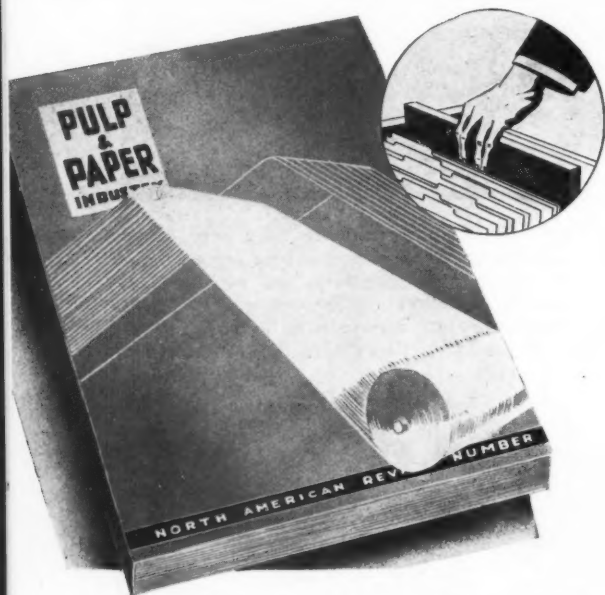
May Reopen Quebec Mill

The pulp mill of Quebec Pulp & Paper Co. at Chicoutimi, Que., may be reopened after a shutdown of several years, as a result of conferences recently held between Dr. Georges Philippe Tremblay and Premier Duplessis and other Quebec government officials.

Newsprint Production

Newsprint production in Canada during April 1946 amounted to 337,862 tons and shipments to 348,103 tons. The Canadian mills produced 295,153 tons more in the first four months of 1946 than in the first four months of 1945, which was an increase of 29.1%.

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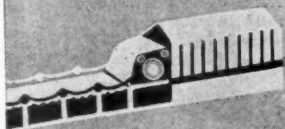
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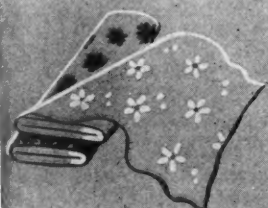
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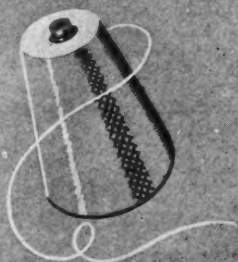
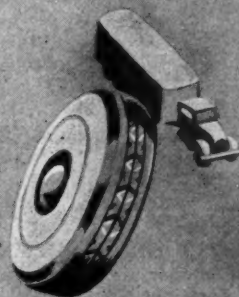
Since 1926, when it pioneered bleached sulphite paper pulp from Western Hemlock, Rayonier has been making scientific history in the interest of its customers.

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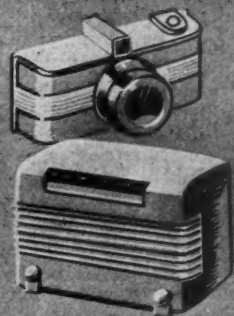
In 1930, the company introduced the first pulp from Western Hemlock for the viscose rayon industry. A dissolving pulp for use in making cellophane followed.

Another Rayonier pulp enabled the manufacture of high tenacity yarns for fire cord, contributing to one of the most outstanding advances made by the rayon industry.



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An Analysis of European Forest Resources

Benton R. Cancell, newly appointed vice president of Powell River Co., and former U. S. WPB Forest Products Bureau chief, was a recent speaker before the Powell River Forestry Association and he presented a resume of his findings in the European pulp and paper field.

Mr. Cancell pointed out that all European forests were heavily overcut during the war years and that in many countries which have been following advanced forest conservation policies for centuries far-reaching destruction occurred. It will be many years before some of these countries are able to return to a sustained yield basis, in Mr. Cancell's opinion.

He also made some references to the situation in South America, which he said would not become a serious competitor of North America for some time because of the present undeveloped state of the industry and lack of knowledge of its forest resources in relation to the pulp and paper industry.

His analysis of the forest condition in the United Kingdom and continental Europe was summarized as follows:

Great Britain—Heavily overcut; the timber was used for buildings and military housing. At present there is a great shortage of lumber and paper, with some timber being supplied now from northern Europe.

Sweden—Overcutting took place during the war but not heavily. Conditions may return to normal in a few years. For many years European countries can absorb all the timber that Sweden can export and much more besides. Sweden turned from ordinary sulfite pulps to a large extent during the war and made a large quantity of pulps for chemical uses, such as explosives, fabrics and plastics. A large industry was built up internally by the use of these pulps, so that it is probable they will continue making large quantities of dissolving grade pulps. It seems unlikely, therefore, that Sweden will be as big a competitor in the paper pulp trade as she was before the war.

Russia and Finland—Not much is known about forest conditions there during the war, but heavy overcutting was inevitable. Some forests were burned or otherwise destroyed by military operations.

Germany — Overcutting started about 1934 and increased each year until occupation. Forests will like-



BENTON RUSSELL CANCELL: "Europe will require forest products from North and South America for many years."

ly be completely cut over except for watershed protection. The timber is to be used for reparations.

Norway—Some areas were heavily overcut by the Germans and it will be many years before they are back to normal.

France—Heavily overcut.

Czechoslovakia—Heavily overcut.

As a result of the heavy overcutting and partial decimation, Europe will require timber and other forest products from the only other source available—North and South America, for many years to come, according to Mr. Cancell, who says the most serious deterrent to trade of forest products with Europe is now lack of credits in Europe.

Heintzleemann Returns To Alaska Post

Frank Heintzleman, regional forester in charge in Alaska for the U. S. Forest Service, returned to his Juneau headquarters May 29 after spending a month in Seattle and on the Pacific Coast discussing with various leaders the possibilities of utilizing Alaskan forest resources for pulp and/or paper manufacture.

Although there has been a great deal of interest and activity stirred up among newspaper publishers on the Pacific Coast, facing acute newsprint shortages, the unsettled labor conditions generally, and Alaskan shipping conditions apparently have militated against any present concrete steps toward construction of a mill in Alaska, according to industry leaders who have been questioned by PULP & PAPER INDUSTRY.

All Alaskan pulp timber of value is in U. S. forests and Forest Service rules require that the wood be processed in Alaska before export, at least to the stage of making pulp.

Col. Henry W. Clark, recently discharged from the army after heading certain sports and educational army activities in Alaska, has been named manager of the territory's official Alaska Development Board, which is seeking to assist in paper or pulp mill development.

Powell River Plans More Newsprint

Powell River Co., the West Coast's major newsprint producer, had set its 1946 objective at 220,000 tons of newsprint, an increase of 32,000 tons over 1945. President Harold Foley announced prior to the British Columbia woods strike which recently threatened to cut this down.

Other products turned out on Powell River newsprint machines totalled 13,512 tons last year, an increase of 646 tons over the previous year. It is probable production of these other products will be curtailed.

"This will involve some sacrifice profitable in that products other than newsprint are more profitable," said Mr. Foley.

Paperboard Hits New Record Pace, Osborne Tells Spring Meeting

U. S. paperboard production during the week ending May 4 reached an all-time high record of 174,501 tons but was still not meeting current demands. President W. Irving Osborne, Jr., told the spring meeting of the National Paperboard Association, held at Absecon, N. J., May 21-22.

The report of Grafton Whiting, association statistician, showed production for 20 weeks ending May 18 was running 2.9% above the pace of the all-time record year of 1944, when 7,920,000 tons was produced.

Mr. Osborne, who also is president of Cornell Wood Products, said OPA policies had contributed to "many dislocations."

He said the raw material situation for

the industry, except for coal, was showing marked improvement since Apr. 1 with pulpwood and waste paper campaigns bearing fruit.

"Most pressing problem is the relationship between labor and management," he said. "Continued unilateral treatment by the government can only promote greater and greater grabs for power."

He called attention to the fact that Finley Bell, retained as labor advisor for the industry, is ready to serve member mills.

Sidney Frohman, Hinde & Dauch Paper Co., Sandusky, O., chairman; Henry Schmidt, Schmidt & Ault Paper Co., York, Pa., and Chas. E. Nelson, Mac Sim Bar Paper Co., Otsego, Mich., were named a committee to nominate new officers for next fall's election.

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NEW ORLEANS

SEATTLE

Experiments of Interest to This Industry Discussed at Federal-State Conference in Madison

Ways and means of offsetting shortages of preferred long-fibered species of pulpwoods and experiments in equipment and processes for the pulp and paper industry were discussed at a convention of about 100 federal and state forest research workers held at Madison, Wis., this spring.

There were numerous talks by speakers who outlined the work they are doing in various federal forest stations, in 15 state institutions and by the Tennessee Valley Authority.

The conference approved the principle of a national forest products technical association. It would be open to state, federal, industrial and private institutions engaged in forest products research.

A few talks touched on pulp and paper problems and one speaker, George H. Chidester, chief of the pulp and paper division of the U. S. Laboratory at Madison, discussed developments in utilizing new species of pulpwoods.

He said the alternatives for the industry were (1) using less desirable species, (2) going farther afield for the desired woods, or (3) increasing imports.

The most attractive possibilities of meeting shortages, he said, lie in the improvement of pulp yield and quality and diversification of species for pulping. Many species not widely used are available, and the utilization of hardwoods in cut-over lands was suggested as a way to improve conditions for reproduction of conifers.

"The Madison Laboratory is investigating means of removing the technical difficulties encountered in the harvesting and processing of lesser-used species and of devising improvements in pulping and paper-making procedures," he said, "and largely as a result of these studies, papermakers have doubled utilization of aspen in the past two or three years.

"Similar information is needed for many other lesser-used species," said Mr. Chidester. "The South, with an adequate over-all supply of long-fibered pine to meet immediate requirements, also has a hardwood utilization problem. Opportunities exist for the use of certain proportions of hardwoods in mixture with pine for kraft products. The Madison Laboratory's research indicates that 10% or more of hardwood sul-

fate pulps might be used without sacrifice of quality."

The Pacific Coast has a major problem in the utilization of low-grade Douglas-fir logs and waste. Douglas-fir pulps are generally coarse-fibered and low in strength, Mr. Chidester said. More information is needed to give improved pulping, processing, and paper-making procedures which will place Douglas-fir pulps in a better competitive position with those made from other species.

In the Rocky Mountain region and California, still another factor—distance from large consuming markets—plays a part in the utilization of spruce, fir and pine, making the problem economic rather than technological, he said. Market surveys to determine possibilities of producing locally standard pulps and specialty pulps such as high-grade rayons may afford leads for development of industry in those regions, he suggested.

A University of New Hampshire report mentioned wood-yeast

feeding experiments on cattle and poultry.

A N. Y. State College of Forestry report cited pulp-paper plastics research utilizing little-used tree species.

Yellow poplar properties are being studied at Yale and at Virginia Polytechnic Institute, it was stated, original research in cellulose chemistry and in uses for Virginia's low grade trees are being carried out.

Prof. H. D. Erickson of the forestry division of the University of West Virginia said his group is working out designs for a mechanical pulpwood barker for hardwoods. "Because hardwoods are more difficult to bark than softwoods, they require a different mechanical action in the debarking machine," he explained.

E. G. Wiesehuegel, chief of Tennessee Valley Authority's TVA is planning alcohol, yeast and plastics studies and now has a pilot plant laminating lumber from cull logs, a process he believes is ready for commercial use.

The Ohio Agricultural Experiment State reported 9-year cycles in selective timber cutting produced better dollar return per acre from 30-60 year cycles and also that blight-resistant chestnuts are being developed.

Michigan's College of Mining and Technology is looking into utilization of aspen and the University of Minnesota has resumed war-interrupted nitric acid processing of aspen for production of alpha cellulose. Utah Agricultural College reported vast stands of aspen going to waste in that state.

Oregon State College reported on a \$100,000 building now being built for wood-use experiments.

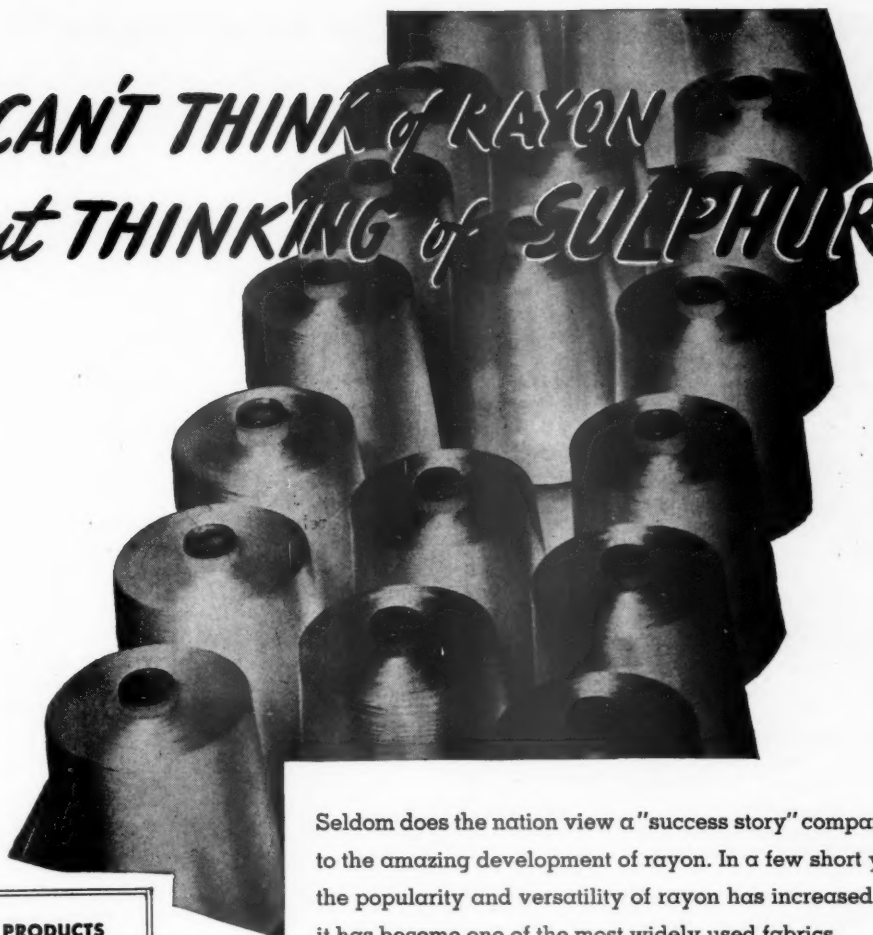
Dr. Bror L. Grondal, University of Washington, Seattle, who arranged the program as steering committee chairman, said experiments to produce Douglas-fir cork led to development of a process of using phloem tissue removed from the cork as a filler for plastics and an extender for certain synthetic resin glues.

He reported that the war interfered with development of a portable hammer mill to convert waste wood to insulating pulp and he also said that he and an associate, Henry W. Berger, have applied for eight patents on processes for utilizing waste liquor of sulfite pulp mills.



J. D. (Don) MacLaurin has been appointed Control Superintendent of newsprint mills, Powell River Co. Born in Revelstoke, B. C., he graduated in chemical engineering from University of British Columbia, attended Graduate School, University of Washington, and received MSc at Institute of Paper Industry, Appleton, Wis., in 1937. Mr. MacLaurin has been associated with B. C. Pulp & Paper Co. at Woodfibre and Port Alice, Kimberly-Clark Corp., and Spruce Falls Power & Paper Co., Kapuskasing, Ont. He joined Royal Canadian Air Force in 1940, retiring to the general reserve as Squadron Leader in Dec. 1944. During 1945 he was engaged in statistical control problems for Kimberly-Clark Corp.

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In the rayon industry, Sulphur is called into active duty at each successive stage. First, it is the principal agent in the preparation of wood pulp. Then, as carbon bisulphide, it acts to solubilize the pulp. After this, as an acid bath, it fixes the threads. Finally, as acid, it helps make the dyes which give rayon its rainbow of colors.

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SULPHUR SERVES INDUSTRY

PACIFIC COAST CONVENTION AT GEARHART (Continued)

producing bright bleached sulfate. Another trend, he said, is away from batch to continuous flow bleaching. Yet another is in improvement and standardization of bleaching equipment. His discussion of various bleaching procedures will be published in a future issue of PULP & PAPER INDUSTRY.

A New Small Log Barker

Final paper in this session was presented by Mr. Holveck, nationally outstanding hydraulics engineer, who explained briefly the operation of the new adjustable ring-type big log hydraulic barking plant at Soundview Pulp Co., Everett, Wash. He also presented a short movie of the operation. He also discussed a new type of small log barker.

Wood savings, in cost and quantity, made possible by cleaner barking and by reduced loss in saw kerf in the big logs, because breakup of big cants is eliminated, was estimated by him at 20%.

He said the big barker, developed in collaboration with Soundview engineers, was designed to produce 500,000 bd. ft. (equivalent to about 1,000 cords in small wood) per day of logs up to 60 inches diameter and 32 ft. length.

Mr. Holveck, however, devoted most of his talk to plans to install a new type of small log barker, "being built on the same principles," at the Soundview mill. This would tie-in with a Soundview program for re-logging of timber stands to bring in small wood, formerly regarded as uneconomical in the Far West.

"I believe most of you are also interested in a small wood barker to clean logs up to 18 inches diameter and four to eight foot lengths," he said. "In this new design the logs would pass through the barker longitudinally and are rotated at the same time. The stationary hydraulic jets are applied only on top of the log in a plane passing through the longitudinal axis of the log. The longitudinal and rotative motion of the log is produced by a series of fluted conical rolls, the axes of which are inclined at a slight angle to the longitudinal axis of the log. It is this angle which produces the longitudinal motion of the log through the jets at the same time that the log is being rotated.

"The conical rolls are in pairs and act as rotating trunions," said Mr. Holveck. "The log moves through the cradle formed by each pair of

rolls and the reaction of the jets plus the weight keeps the log moving through the successive pairs of rolls.

"The barking action produced by the jets is similar to the cutting of a tool in a lathe. However in this case the log moves and the jets are stationary.

"Since the angle of advance is fixed and the jets are applied at only one location in the total circumference of the rotating log, the cutting width or kerf required varies with the diameter of the log.

"There are four adjacent nozzles which provide for complete coverage and barking of the log. These are controlled so that only the required jets are applied, thereby conserving water and power. Logs up to 4" diameter require one nozzle. Logs 4" to 9" require two nozzles. Logs 9" to 14" require three nozzles. Logs 14" to 18" diameter require four nozzles.

"The speed of barking is determined by the type of the logs and tightness of the bark. This variable control ranges between 60 and 110 feet per minute.

"An important factor in the rate of barking in terms of volume is the average size of logs. A run of logs averaging 6" diameter may be barked at the rate of six to ten cords per hour; logs averaging 8" at 11 to 17 cords per hour; and logs averaging 10" at the rate of 17-25 cords.

"We find quite a variation in the tightness of bark. To insure satisfactory barking an average pressure of 1050 p.s.i. has been selected. This pressure combined with the requisite water flow through an efficient nozzle has been found to produce results desired.

"In this new barker, reliance is based entirely on 100% hydraulic erosion, to the exclusion of brushes and other mechanical means," said Mr. Holveck. "The hydraulic horsepower will vary with output desired and average diameters, and will range between 350 and 500 h.p."

Heron's Address

The men's luncheon on the final day was featured by a philosophical and inspirational speech given by Col. A. R. Heron, Crown Zellerbach vice president—the type of address for which he has long been distinguished in Pacific Coast industrial-labor circles.

In introducing him, Toastmaster Wertheimer said "labor organizers meant it as an affectionate term

when they nicknamed Col. Heron the 'Silver Fox' and he was warmly welcomed back to the annual Pacific Coast labor negotiations this spring by the labor side, as much as by management, after his long absence in military service."

"What Creates Jobs" was the title Col. Heron took for his talk. He recalled how the WPA had been a "job-buying" emergency measure and how during the war the "purchase order" was for victory. But neither of these emergencies now exist, he said, and jobs and wages today must depend upon the appetites of customers for the products of industry.

"The job of management is selling—acting as an agent to sell to someone the services of its employees," he said. "It is the customers who will decide how many jobs there will be."

As an example of possible activity, he said, "if the rest of the U. S. got as much enjoyment out of the use of automobiles as the west coast, there would be a continuing demand for automobiles two and one-half times as great as that at present."

In 1940, the year of "greatest production of goods and service by any nation in the history of the world," he said, "the U. S. was still without the services of 8,000,000 persons who wanted to work."

"Unless there is a customer at the end of the line, the worker won't have a job," declared Col. Heron. "The worker, if he is intelligent, will realize there is a limit to what he can be paid and why there is this limit. If top management could see this, there would be greater emphasis on (1) progressive and aggressive research and (2) relations with customers, competitors and suppliers.

"Jobs can't be created by legislation, by theories out of textbooks, by discoveries of minerals or other potential wealth but only if somebody wants the product. When we cease to have customers and try to pay attention to employment as a thing in itself, we are heading for trouble."

A ladies' luncheon was held at the same time at the nearby Ocean House. Door prizes at this luncheon went to Mrs. L. E. Warwick of Port Angeles, Mrs. R. D. Waddell of Lebanon, Ore., and Mrs. Ackley, who presided, with Mrs. Bialkowsky and Mrs. Barton as honored guests.

Attendance at Gearhart

For the most successful Far Western spring meeting on record, there were

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A reproduction of this incident from the fabulous life of Paul Bunyan—the seventh of a series—will be sent on request. It will contain no advertising.

352 men and women registered. These included 229 representatives of mills or supply companies. Of this number, more than half—123—brought their wives. Following are men who were registered:

Crown Zellerbach Corp. delegations:

From Camas, Wash.—G. W. Charters, F. W. Flynn, G. H. Galloway, Walt F. Holzer, Walt C. Jacoby, Gus Lorenz, L. D. McGlothlin, R. G. Misphey, Gus Ostenson, Jack Savage, Ed Webberley, Pete Wilkie and H. Wyman.

From Port Angeles, Wash.—N. A. Lewthwaite, Ray Austin, L. B. Warwick.

From Port Townsend, Wash.—E. F. Drake, Harold Quigley.

From West Linn, Ore.—J. A. Harris, J. Haugerod, R. Pratt, E. H. Nunn, C. A. Enghouse.

From Lebanon, Ore.—Douglas Waddell and C. E. Ackley.

From San Francisco—Col. A. R. Heron.

From Portland—Otto Hartwig.

Weyerhaeuser Timber Co. (Pulp Div.) delegations:

From Everett, Wash.—G. F. Alcorn, H. W. Bialkowski, Mr. Buck, O. K. Chapman, Leslie R. Hartman, L. E. Hill, Jr., Mr. LeBeau.

From Longview, Wash.—Ray S. Hatch, H. A. Hauff, H. R. Heuer, S. E. Hazelquist, Herman Jorgenson, Vern Mauerman, Oliver Morgan, H. T. Peterson, F. M. Driscoll, Wm. Pittam, George Robbins, Preston Varney and Dr. Ruth Watts.

Ryanier Incorporated delegations:

From Hoquiam, Wash.—Olavi Aho, A. Gustin, G. A. Holt, Otto H. Sangder and L. R. Wood.

From Shelton, Wash.—Dr. B. Briggs, G. C. Eck, Dr. Holloway, E. J. McGill, Dr. Schlosser and R. Van Arsdale.

From Port Angeles—H. V. Charnell, Harry Thurlow and E. Woodruff.

Delegations from other mills:

Longview Fibre Co., Longview—R. S. Wertheimer, Carl Fahlstrom, Russell Graff, John Hart, V. Peters, Tony Siebers, W. J. Shelton, V. W. Sutherland, Harold Wall, J. A. Wilcox.

Soundview Pulp Co., Everett—G. J. Armbruster (retired), N. W. Coster, George Gladdings, M. J. Hobson, Adolf Orup, R. I. Thieme and J. H. McCarthy.

Hawley Pulp & Paper Co., Oregon City—C. E. Braun, Austin Nickels, Fred J. Weleber, Gordon Sherwood and Tom Grant.

Oregon Pulp & Paper Co., Salem—Douglas Armstrong, Mr. Geo. Cleary, K. W. Heinlein, George Moorhead and Mr. Gerald Richards.

Inland Empire Paper Co., Spokane—J. L. Janacek and Myron W. Black.

Fir-Tex Insulating Board Co., St. Helens, Ore.—Veldon Anderson, J. E. Robinson and R. W. Simeral.

From Westminster Paper Mills, New Westminster, B. C.—John Ashby.

St. Helens Pulp & Paper Co., St. Helens—Ray Brown, Ralph Drane, Joe Gorman, Max Oberdorfer, Jr., and John Zaniker.

St. Regis Paper Co. Tacoma—A. M. Cadigan, Paul Holmes and A. C. McCorry.

Fibreboard Products, Inc.—E. J. Cavanaugh and C. F. Meagher (Port Angeles); James H. Dunn and Robert W. Vaughan (Sumner).

Puget Sound Pulp & Timber Co., Bellingham, Wash.—Eric Ekholm, Eric O. Ericsson and V. N. Haner.

Coos Bay Pulp Corp., Empire, Ore.—

J. D. Fraser, J. R. Lewis, Mr. C. G. Reynolds.

Pacific Paperboard Co., Longview—K. W. Gordon, O. D. Latimer.

British Columbia Pulp & Paper Co., Vancouver, B. C.—J. Guthrie, Leo C. Kelley.

Powell River Co., Powell River, B. C.—F. A. Wyborn, W. A. Snyder and Fred Riley.

Columbia River Paper Mills, Vancouver, Wash.—M. C. Kaphingst, George Miller, Jack Weiblen, E. N. Wennberg and E. V. Young.

Pacific Coast Paper Mills, Bellingham, Wash.—P. J. Onkels.

Everett Pulp & Paper Co., Everett—H. R. Russell, Paul R. Smith.

Spaulding Pulp & Paper Co., Newberg, Ore.—Ralph Reid.

Associated Industries

Fred Armbruster, Dow Chemical Co.; C. E. Bennett, C. W. Harschberger, Western Gear Works; H. H. Richmond, J. A. Blake, W. B. Kirby, J. M. Wilcox, Electric Steel Foundry Co.

B. E. Natwick, Appleton Wire Works; Martin Breuer, E. I. du Pont de Nemours & Co., San Francisco; Fred Alsop, Hugh G. Mount, Mount & Alsop, Inc.; J. Briody, Industrial Chrome Plating Co.; Mr. W. M. Browning, General Petroleum Corp.; Ed. Butts, G. A. Sporre, Stein Hall Co.; R. E. Chase, R. E. Chase & Co.; W. M. Cline, J. B. Sutherland, G. F. Wilkins, General Chemical Co.; R. R. Cox, Walworth Co.; A. Damman, Bristol Co.; H. N. Danielson, T. A. Wahlstrom, E. G. Drew, Drew Engineering Co.; Allen Dunham, Lockport Felt Co.; J. F. Brinkley, Warren Steam Pump; W. R. Dickie, Shawinigan Chemical Co.

H. A. DesMarais and R. M. True, General Dyestuff Corp.; Harris Fenn, National Aniline Div., Allied Chemical & Dye Corp.; Irving R. Gard and Mr. F. J. Fitzpatrick, Merrick Scale Mfg. Co.; E. R. Barrett, A. O. Smith; E. Firman Flohr, E. Firman Flohr Co.; F. A. Fulton, Wilson & Geo. Meyer Co.; Dave Fulton, Westinghouse Electric Corp.

John M. Fulton, Pacific Coast Supply Co.; Gordon Gabie and G. G. Morrell, Van Waters & Rogers; N. O. Galteland, Instrument Supply; J. E. Garrison, American Cyanamid Co.; W. R. Gibson and G. L. Geisner, Northwest Filter Co.; Howard B. Gerber, Williams Gray Co.

J. E. Goodwillie, Beloit Iron Works, Beloit, Wis.; Ronald Hendry, Tacoma Plumbing Co.; C. H. Graham, Bumstead & Woolford; H. F. Hoehne, Sailors Tool & Equipment Co.; R. G. Muddock, Clyde Holcomb, Thomas Edison Co.; J. E. Holveck and H. W. King, Worthington Pump Co.

John Rue (Niagara Falls) and R. D. Vognild, Hooker Electrochemical Co.; O. L. Hudrik, Flox Co.; Col. H. W. Johnston, and D. Manson Sutherland, Sutherland Refiner Co.; Don Keating, Stauffer Chemical Co.; R. T. Kidde, Chicago, Ernie Kurtz, John Bolton Co.; W. H. Kelly, Waterbury Felt Co.; A. L. Lundberg; M. J. Maguire and J. V. B. Cox, Hercules Powder Co.

W. C. Marshall, Calco Chemical Co.; Mr. C. A. Mitchell, General Petroleum Corp.; T. E. Moffitt, Roy Shaneman, B. L. Shera and R. A. Snyder, Pennsylvania Salt Mfg. Co. of Washington; A. E. Montgomery, J. O. Ross Engineering Co.; C. W. Morden and R. Burke Morden, Morden Machines Co.; Jack Neilsen, Western Machinery Corp.; R. T. Petrie, Black Clawson Co., and Col. Harry Ellens (his guest).

A. S. Quinn, Stebbins Engineering

Corp.; W. H. Rambo; W. A. Salmonson, Simonds Worden White; K. N. Ackles, F. Honey, Corn Products; F. U. Sams, Allis-Chalmers Mfg. Co.; C. M. Server, Philadelphia Felt Co.

Ray Smythe, Rice Barton Corp.; H. F. Waffle, Jake Werschul, Zina A. Wise, Griffith Rubber Mills; Wm. Williamson, Shuler & Benninghofen, and L. F. Wray, Simonds Saw & Steel Co.

Other guests:

G. W. E. Nicholson, president, TAPPI, and vice president, Union Bag & Paper Corp., New York; Ray Barton, president, Superintendents' Association, and supt., Michigan Paper Co. of Plainwell (Mich.); R. G. Macdonald, secretary-treasurer, TAPPI, New York; James Ritchie, U. S. Pulp Producers' Ass'n., New York; A. R. Tongue, Australia, and Chester Fee, L. K. Smith and Al Wilson, PULP & PAPER INDUSTRY.

Safety Prizes for Two Scott Subsidiaries

First place went to Marinette Paper Co., Marinette, Wis., and second place to the Empire, Ore., division of Coos Bay Pulp Corp., in the 1945 Scott Paper Co. safety contest. Both are subsidiary companies.

The Empire mill decreased accident frequency 22% under 1944. Marinette reduced its accidents 55%.

Axel Brandstrom Joins St. Regis Operations

Axel Brandstrom, former chief forester for Crown Zellerbach Corp., has been made vice president in charge of forestry for West Fork Timber Co., Tacoma and Mineral, Wash., which is principal supplier for the Kraft Pulp Division of St. Regis Paper Co., in Tacoma.

When St. Regis acquired rights to the 65,000 acres of timberlands owned by West Fork over a year ago, the agreement provided that the cutting be according to a sustained yield program instituted by Tom L. Murray, president of West Fork Timber Co.

Mr. Brandstrom also will do consulting work outside of this project.

Link-Belt Builds New Plant in Seattle

Link-Belt Co., manufacturers of chain, power transmission and conveying machinery, is building a new plant at 6th Ave. South & Hinds St., Seattle, to replace the company's present plant at 820 First Ave.

The modern new plant will include a machine shop, larger warehouse facilities, and an up-to-date office building.

Ralph S. Drury, vice president, Link-Belt Co., Pacific Division, and Fred A. Koepf, district manager, with headquarters in Seattle, direct the activities in the Pacific Northwest.

J. H. McMurray Named Asst. Manager of Calco

S. C. Moody, general manager of the Calco Chemical Division, American Cyanamid Co., Bound Brook, N. J., announced the appointment of J. H. McMurray as an assistant manager of Calco.

The appointment is in line with the recently announced plans for expansion of plant facilities. Mr. McMurray, was Calco's director of engineering and construction.

SOME THOUGHTS ON ROSIN SIZING

When it was first discussed that this paper be presented, the thought occurred that it would be interesting to entitle it, "Some New Developments in Rosin Sizing." However, after due deliberation, it appeared that it would be much more appropriate could we present our discussion something like this—"A Guaranteed, Fool-Proof Method for Obtaining Rosin Sizing." I must admit that I am unable to do this and, with all due respect to my contemporaries, I feel safe in saying that they cannot do it either. That brings us to the point, then, of presenting what we shall entitle, "Some Thoughts on Rosin Sizing."

Let us start by reviewing a little history. Slightly more than 125 years ago the paper industry was a seasonal one. The finished handmade paper sheets were dipped in animal size, drained, and dried. This process only resulted in satisfactory paper during the moderate spring and fall seasons. In the summertime, the size film dried too quickly and cracked. In the winter, the sheets dried too slowly and the size became moldy before sufficient time had elapsed for it to set.

About the year 1807, Illig discovered vegetable sizing and wrote his paper, "A Guide to Safe, Simple and Cheap Methods of Sizing Paper Pulp." He went into the matter very fully and little improvement has been made on his original theory, irrespective of all the advances in sizing procedure. By Illig's method, pulp was beaten in the Hollander and a solution of rosin and potassium carbonate was added to the pulp suspension. The rosin was later precipitated with a solution of alum.

About the same time that this rosin-alum method of sizing pulp was discovered, the paper machine came into being. It was now possible to produce a paper sized in the Hollander and in an acceptable and usable condition directly from the machine. Thus, a great industry was born.

Illig's method, notwithstanding its contribution to the manufacture of paper, was accompanied by occasional sizing troubles which plague us, even to this day. To be able to partially avoid these and to know the reasons for the results accomplished, the necessity for a scientific sizing theory arose. A prize was offered by the Industrial Society in

By Robert G. Misphey

Assistant Tech. Director,
Central Tech. Dept.,
Crown Zellerbach Corp.

(A paper presented before Supts.-TAPPI Joint Spring Meeting, Gearhart, Ore., May 18, 1946).

Mullhausen which was won by Wurster in 1879.

The idea which Illig had put forth was that rosin must be used in alkaline solution in order to obtain thorough mixing with the pulp. Following precipitation with alum, which he conceived as only removing the solvent, which in this case was alkali, essentially the abietic acid, thus liberated, sized the pulp. There were a few other theories which manufacturers and chemists brought forth, most of which were based upon the production of an alumina-rosin compound. These resinate soap formation theories were quite generally accepted until Wurster brought forth and enlarged upon the theory of sizing with free rosin. The resinate theory versus the free rosin theory battle still continues, although the free rosin theory has constantly gained more and more support and appears to be the more sound. Free rosin theories have many variations, but all have the one common thesis, that the rosin sizing is mechanical rather than a chemical salt formation. In Wurster's paper a sentence is to be found which anticipated a fundamental principle of modern colloidal chemistry. He stated that, "the degree of division of the rosin is of the greatest importance." Thus was recognized a continuation of division of material approaching as the ultimate, molecular dimensions.

Let us go back for a moment and review both Illig's resinate theory and Wurster's free rosin theory, in somewhat more detail. That Illig's theory that sizing was a simple, double decomposition reaction of salt formation is not tenable can be proven in many ways. Following Illig's discovery in which the rosin was used with its equivalent weight of alkali in hydrous solution so that a brown neutral size resulted, the natural course of experimentation resulted in less than the equivalent weight of alkali being used. It was found under such conditions that a more efficient and cheaper size solution was obtained. In this rosin soap there was an excess of free

rosin in milky solution, hence the name, "milk of rosin."

It was not recognized until some time after the date of Illig's discovery that if a neutral rosin solution is placed in a pulp suspension, and the whole allowed to stand for some time, that the suspensions became cloudy or milky. Neutral rosin size does not remain clear or in its original state for very long, even alone. Hydrolysis occurs, resulting in an alkaline condition. When intermixed with pulp, this action is speeded up, due to the differential adsorption and absorption of various ions. Cellulose fiber has an affinity for and a relatively high take-up of sodium hydroxide. When this is removed from the solution of sodium resinate, the size solution becomes deficient in alkali and free rosin is liberated. In the extreme dilutions which occur in the beater, this action takes place rather rapidly, so that it is impossible to have sodium resinate existing for very long in papermaking furnish. The sizing agent then becomes a mixture of free rosin and sodium resinate. Given sufficient time, and what amounts to, for all practical purposes, infinite dilution in the papermaking furnish, a neutral size would be thoroughly and completely hydrolyzed, resulting in a free rosin sizing as the essential material. These two examples will provide sufficient evidence to indicate that the resinate theory was not a satisfactory explanation.

Wurster, in his explanation of the free rosin theory, was confronted with the fact that satisfactory rosin sizing could not be obtained with rosin size precipitated by sulfuric acid, hydrochloric acid, or others similar. If it were free rosin that was responsible for the sizing of paper, such reaction should produce the anticipated results. However, no permanent sizing effects could be obtained unless alum were used. We might say that it is not necessarily alum that is required, but some aluminum salt providing alumina upon its hydrolysis. For one reason or another, other aluminum salts are not universally used.

We have now arrived at the particular point where some definite statements appear possible. Sizing can be accomplished with neutral rosin soap. It is also possible to size with practically a 100% free rosin emulsion. Alum is required if efficiency of sizing is to be ac-

complished. At least, some aluminum salt must be added along with either the neutral or free rosin emulsion. With these statements as a starting point, volumes and volumes have been written in an attempt at an explanation of the sizing mechanism. We will not endeavor to cover all of these, but the high spots of the particular theories, which appear to best explain our sizing problems, will be discussed.

Role of Aluminum Sulfate

Leaving any discussion of rosin for the moment, it will be of interest to briefly discuss the role of aluminum sulfate in the beater. Aluminum sulfate reacts acidic because of hydrolysis. This hydrolysis and that of the size occur mutually and assist one another.

If the rosin size has been added to the beater sufficiently far in advance so that hydrolysis is already complete and hydroxyl ion adsorption has taken place, the action of an amount of liberated sulfuric acid from the alum neutralizes remaining hydroxyl ions, thereby reducing the stability of the dispersion. In case the two reactions occur simultaneously, a basic aluminum sulfate is probably formed, continually decreasing in sulfuric acid content, until it reaches a state of free aluminum hydroxide jelly. An excess of alum must be present during the sizing, hence the aluminum is necessary. Many reasons have been brought forth as to why an excess of alum is required, but none of them are infallible. To tie in with some of our later statements, we subscribe to the statement that it is necessary to lower the interfacial potential between the fibers and rosin particles so that the mutual repulsive force is reduced below the so-called critical potential and the free rosin is flocked out on the fibers by the mordant alumina.

A logical explanation, and one capable of substantiation, appears to be one which is a combination of the various electrostatic sizing theories which have been advanced. Throughout all of the early work on the sizing and the various papers published over the many years, there are many hints that electrical phenomena must be somehow concerned in paper sizing.

It was found that certain machine parts had to be grounded before satisfactory sizing could be obtained. Also, that in mid-summer, during the warmer part of the year, sizing troubles were more prevalent. In the winter time, during severe at-

mospheric disturbances, sizing has been difficult. By electrophoretic studies, it has been found that the cellulose fiber is negatively charged. Rosin is also negatively charged, thus, the two repel one another and no sizing reaction takes place.

Aluminum hydroxide, originating in the beater as a hydrolysis product of alum, is a positively charged colloid. It has gone to the negatively charged fibers electrostatically flocculating on them with neutralization of the charges. Let us consider, and it appears logical to do so, an assumption of Bowmann's Mordant theory, by which the cell wall of the fiber acts as a semi-permeable membrane, that it is a microdialyzer permitting molecularly dispersed alum into the lumen of the fiber, but not permitting the hydrolysis product, aluminum hydroxide, to diffuse out again. The hydrolysis of alum proceeds proportionately with the adsorption of its reaction products. In sizing, it proceeds faster as the sulfuric acid, the other hydrolysis product, is used up. By this reaction, the paper mat, as a whole, takes on a positive charge, that of the excess alumina.

By separate studies, it can be shown that an aluminum hydroxide sol will discharge a rosin size, precipitating the rosin particles. The rosin particles are negative, as are the cellulose fibers. From these reactions then, the conclusion can be drawn that aluminum hydroxide with a positive charge acts as a mediator, an electrostatic adhesive, between the negatively charged rosin and cellulose. To large an excess of aluminum sulfate is injurious to permanency of sizing. The logical answer is that with too rich an absorption of positive alumina, all of the constituents of the paper carry positive charges, and so would be disposed to a repelling effect and loosening of the whole system. The most permanently sized paper and well-sized paper, in which this loss of sizing need not be feared, should be as nearly as possible to a neutral or isoelectric state, but upon the lower side of this range.

We might well mention that there are many types of rosin size emulsions available, both following the low-free and high-free theories. All of them have had success in certain cases, but none have been found universally applicable. The normal sizing emulsion purchased today contains around 20% free rosin, the remainder being rosin soap. This emulsion appears to work best under varied conditions of water from extremely hard to very soft, with the various temperatures encountered

in the different operations, and with the types of rosin available. There are various high-free rosin emulsions in existence. One, which has had a degree of success, is a protein-protected free rosin. Another has gone a step farther in producing a protein-protected free rosin, but differs from the first in that the rosin is in a precipitated state. There are other emulsions of varying free rosin content which are produced mechanically. By way of contrast, completely saponified size emulsions have been used. Thus, we have both extremes with many variations in between.

Pulp Receptivity

Let us now devote our considerations to the many factors in the pulp and paper manufacturing operation which contribute or detract from sizing efficiency and quality. Different pulps have different receptivity to sizing. Many of these cannot be explained. They are naturally occurring phenomena. It might be said, however, that, in general, kraft pulp is the most easily sized, both in the unbleached and semi-bleached state. A full-bleached kraft pulp is still relatively easily sized, but perhaps not so easily as is unbleached sulfite.

Steamed groundwood or so-called "brown stock" is readily receptive to sizing. We might say that these are followed in increasing difficulty of sizing by bleached sulfite, rag, and, finally, normal groundwood. There are many deviations and variations from this listing, but, in general, this would be found to be the case.

The hemi-celluloses, in particular, appear to have a definite bearing. It has been found that cellulose in the pure state decomposes aluminum sulfate up to about 0.3% of its weight. This decomposition was found to be independent of the concentration of the alum solution used. If, instead of using pure cellulose, the papermaking fiber is used, it is found that the adsorption of alumina is relatively proportional to the ash content of the fiber. This, then, brings up the probability that there is some type of an exchange adsorption or absorption. We have made many examinations on pulp from various mills, and have found that this exchange adsorption is relatively greater than any physical absorption or natural absorption. If we analyze the pulp in the raw state, then after reacting with alum solution, or even after normal sizing procedure on the paper machine, we find that the alumina has pretty well

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replaced constituents which were contained in the original fiber. Thus, it appears that a beneficial result would be obtained if we could secure a pulp with as high a natural ash content as is possible.

The foregoing comment suggests that even within one particular pulping method there might be various ways in which the pulp could be improved. We believe that there are. Unfortunately, this brings forth conflicts with the pulping people. Their tendency has been and is to produce a pulp approaching pure cellulose. This may not be the desirable direction in which to go for best paper manufacture. We leave it to you in your individual mills to make your own analysis.

Types of Water

In connection with rosin sizing, much discussion has been given to the type of water which would be best to use. I believe it is generally agreed that a mineral free water is a very difficult raw material with which to produce satisfactory sizing. A certain amount of mineral salt content is advantageous. There are some sections of the country in which mineral content is of such nature and such magnitude as to actually make sizing procedure difficult. For this reason one cannot prescribe a satisfactory sizing procedure for the country as a whole, either as to the type of size used, the alum-to-rosin ratio, or the order in which the sizing material should be added.

In sections of the country that have to contend with hard water, it has appeared advisable to add all of the alum, or at least a portion of the alum, prior to addition of the rosin size. Also, in these particular instances, high-free rosin sizes have not appeared to be as efficient as neutral or low-free sizes.

In sections of the country, such as the Pacific Northwest, wherein the water is relatively soft, although not so much so as exists in certain areas, the best procedure appears to be to add the rosin size first, thoroughly dispersing it, then follow with the alum.

This brings up another point, and that is, how long should the rosin size remain in the pulp suspension prior to addition of the alum and how long should the aggregate remain in the pulp suspension prior to addition of the alum and how long should the aggregate remain in the pulp suspension prior to manufacturing of paper. These particular items in detail must be worked out by the individual mills. With the

advent of new refining equipment, eliminating beaters and a relatively long holding cycle, perhaps different methods of sizing will have to be evolved.

We might mention, too, that there are many adjuncts to rosin sizing, depending upon local conditions. The addition of basic alumina has been found, in many instances, to be of benefit. Starches, providing gelatinous surfaces, have been found to be satisfactory collecting agents. In like manner, have some of the newer synthetic resins. Wax size, in some instances, can be used as a supplement.

Handling Through Machine

In the discussion so far we have progressed up to the point wherein the pulp furnish is delivered to the paper machine. Rosin sizing can be destroyed or normally produced by the method of handling through the machine.

There are various factors to observe and study, again depending upon the individual case. Too great a box and couch vacuum on the wire appears to lower sizing efficiency. Too much pressing through the presses, pressing out the size, or watermarking the sheet, loosening the fiber and expelling air, are also detrimental. There is a proper type of drying curve, the actual maximum temperature required being debatable. It appears that a rather slowly, gradually rising curve, not reaching too high a maximum temperature, holding this maximum for a time and drying down to just about the point where water of hydration is about to be lost from the sheet, then sweating back in a little moisture to produce the necessary physical characteristics of the paper, and giving the final sheet a minimum of calendering appear best. Too rapid a drying causes a rupture of the rosin-alumina cellulose bond. If the paper is not dried out sufficiently, hysteresis results and sizing is not permanent.

For best economy and efficiency it appears that the paper machine should be operated as nearly a closed system as is possible. With the advent of new high pressure show-ers for the wire, it appears that a large volume of fresh water addition can be eliminated. A save-all is most desirable, both from the standpoint of retaining the fine fibers and also to minimize loss of rosin to the sewer. If it were not for dirt, it would be possible whereby the paper machine could be operated as a 100% closed system, letting in

only enough fresh water to replace that lost by evaporation in the driers.

Conclusions

We would like to state, as a personal belief, that there is no subject in paper manufacturing which is more interesting than the study of rosin sizing. Also, I might say that it is one of the most confusing and baffling. However, with a thorough study of the water supply, placing the particular operation into a definite category, of which there are not too many, by thoroughly studying pulping procedures, and possible variations, by carefully going over the paper machine and following with complete evaluation of the paper produced, we believe that any operation can develop procedures which would eliminate the constant fear of imperfect sizing. We would like to further state that we can receive a great deal of benefit from the many service companies which furnish the materials to us. We should never cease our constant experimentation, but we should undertake this experimentation as a totally new adventure; that is, the experiences in another section of the country or even in another mill in your own locality must be taken with a suitable number of grains of salt. In fact, the situation can and does exist wherein two machines within one mill, or two machines within any one corporation, must follow entirely different procedures. Neither should the technical service representative feel particularly dejected when some test procedure has failed to work. In fact, it is unusual should it do so the first time. As long as the procedure is not causing any particular harm, it might be well to carry on and see if proper adaptation cannot be made.

Finally, if conceivable within your operations, thought should be given to the possibility of using more than one type of sizing emulsion within the mill. The single system of normal practice today results in a size of higher than necessary quality for some grades and one of less than desired quality for others. After the capital investment for a multiple system has been accepted, economics should balance out so that over-all sizing costs should not be beyond practicable consideration.

Major Crout Returns

Major Glenn Crout, shipping foreman for the Puget Sound Pulp and Timber Co., is now back in Bellingham after three years in U. S. Army, including duties in Calcutta and Shanghai, where he was in charge of port facilities.



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MODERN PAPER MACHINE DESIGN

Paper machine developments in the war years have not been marked by the establishment of any revolutionary devices or machine arrangements, and that is very natural. Because the paper machine is a rather complex assembly, because each of the various papers made has quite definite specifications which must be met, and because the machine is an essential link in the production line from pulp supply to finished product, any experimental work can only be undertaken when conditions are most favorable and when any resultant interruptions in production can be tolerated. The production record of the paper industry during the war years was truly remarkable, and could only be accomplished by keeping every machine steadily on the job. However, a good many refinements in design have been quite well established and we shall try to discuss some of them in the time available today. Because the Fourdrinier predominates in this section of our country, the discussion presented here has been confined to that type of paper making machine; we hope those present whose interests lie mainly in cylinder type machines will find something that may apply to their operations.

Headbox and Slice

The interest shown in recent developments for the headbox and slice of Fourdrinier machines has indicated that improvements here are earnestly desired. Traditionally screens have been arranged in line with the machine at an elevated position and provided with a flow box that discharged into the head box, usually with some type of adjustment to permit holding a desired discharge head on the screens with varying head box levels. Several conditions have developed that tend to change this arrangement. The higher operating speeds reached by some types of machines would call for screen locations approaching the roof trusses of ordinary machine rooms and some arrangement permitting screen location at machine room floor level was desirable for ease of inspection and maintenance. Many kraft machines are now operated without machine room screens, all screening being done in the pulp mill. Then there have been instances where rebuilding of machines re-

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(A paper presented
at Supls.-TAPPI
Joint Spring Meeting,
Gearhart,
Ore., May 17,
1946).



quired more length than machine room limits provided and the location of screens out of the machine line, for example along the back wall parallel to the machine, provided the necessary space. Under these different circumstances it became necessary or desirable to bring the mixed stock and water to the head box in a single pipe and the problem of properly spreading the flow to full head box width had to be solved.

In addition it had long been felt that the older arrangement where one or several screens dumped their flow into the back compartment of a head box was not desirable because very coarse and unruly swirls resulted and because the flows from the individual screens were not completely blended. A merging of the entire flow into a single pipe and subsequent spreading, if this could be well worked out, therefore had further advantages.

Several different arrangements have been developed to accomplish this spreading of the stock and water flow—the one which the writer happens to be more familiar with can be briefly described. Starting from a single pipe located at machine center line below the head box, the flow is divided into two branches, and these run to the front and back of the distributor through exactly similar piping of identical length. The distributor, which contains two horizontal flow passages of tapered section and having a common center wall, extends across the machine under the back of the head box. A slot in the top of the distributor is located over the common center wall of the two tapered passages and is so arranged that an upward flow from the two passages combines in a confined space before it passes vertically up into the main head box as a stream the full width of the box.

This arrangement, which is called the cross-flow distributor, is quite a simple device when considered from the standpoint of hydraulics, and can be designed for any required rate of flow and width of machine. This is a highly satisfactory situation for a machine designer because the older arrangements of multiple pass head boxes with various adjustable baffles were actually largely engineered on a guessing contest basis, subject to wide variations in effectiveness with changes in screen arrangement and rate of flow. You can all probably recall instances when it was decided that a head box would be built just like one that had been observed in another mill because the flow to the wire looked so good, and also familiar with the disappointments that sometimes resulted.

A good distributor plays a very important part in bringing about a satisfactory flow to the Fourdrinier, but without adequate control of that flow right up to the slice itself, the results can be most unsatisfactory. In this connection, the well known rectifier, or perforated roll in a modernized form, has proved to be very effective. Older designs of rectifier rolls have been considered trouble-makers because formation of stock lumps and strings could be traced back to them. The newer designs have been free of these troubles under difficult stock conditions and have been of great assistance both in preventing formation of fibre flocks and in promoting a good flow to the wire.

Two points connected with head box design might be mentioned together because they are rather closely related. All parts of the stock and water volume should be kept in active flow to avoid the clothing of fiber bundles and at the same time there should be adequate provision for release of air from the flow. A very slow, quiet flow would assist in air separation but too much emphasis in this direction would certainly promote formation of stock clots—here we are faced with the kind of limitations that always seem to be encountered in paper making. However, by causing the main flow to take an upward path as it comes from the distributor into the back of the head box, a good opportunity is given for the escape of entrained air, and by subsequently

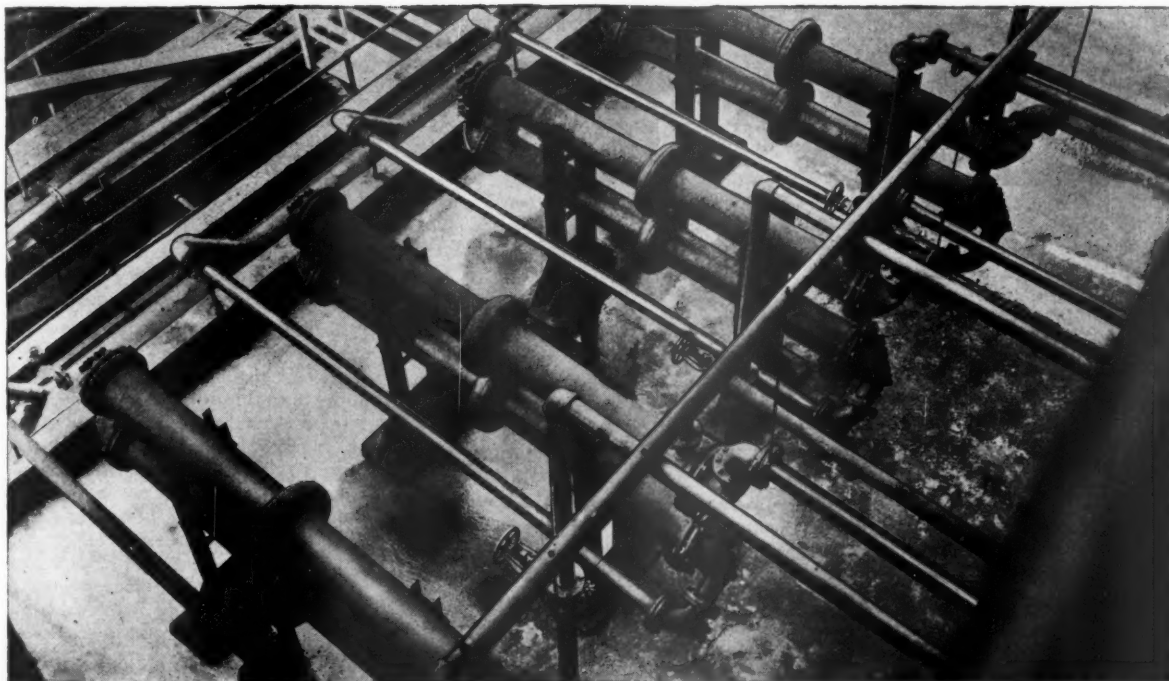
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directing the flow through suitable rectifier rolls it seems possible to retain good activity and the dispersal of fibre bundles.

One more observation may be made regarding the effects of entrained air. There is a pronounced tendency for air bubbles to collect on under surfaces of head boxes or slices and for these bubbles to remain in such positions even when the flow conditions would be expected to sweep them clean. The presence of these air bubbles seems to promote formation of slime and stock lumps which build up and break away from time to time with bad effects in the sheet. It is therefore considered best to avoid arrangements calling for flow against the under side of any surfaces unless the turbulence of the flow at such points is great enough to keep the surface swept clean of air.

Generally speaking, simplicity and accessibility are greatly to be desired in arrangements at slice and head box. Any reduction in the amount of surface contacted by stock and water is a step in the right direction so long as a good control of flow is retained. Also arrangements which permit of easily reaching all surfaces for a thorough wash-up will be greatly appreciated by the machine crew and usually result in less paper rejected because of slime spots and stock lumps.

For many years we have advocated slice arrangements permitting use of some degree of pressure formation. The degree of pressure formation is not always predictable as it varies somewhat with the character of the stock and the type of sheet being run; therefore a means of readily varying the horizontal position of the slice with respect to the breast roll center line became desirable. This development has been carried out successfully and has added greatly to the flexibility and effectiveness of the slice.

A point which should not be omitted here is the fact that no type of slice and method of adjustment can make up for bad head box conditions. This is probably generally appreciated but it still is not unusual to see operators vainly trying to level a Fourdrinier sheet by warping a slice lip into a series of uneven bends across the machine. Almost invariably this is an indication that the flow through the head box contains heavy cross currents and swirls, persisting right up to the slice and, consequently, carrying out on the wire. The streaked flow resulting cannot be corrected by slice adjustment, as the fault does not lie in too heavy a flow in the machine

direction. It can be demonstrated that even if the weight of stock and water deposited by the slice upon the wire is quite uniform across its width, a comparatively small cross current at some point in that flow will act to move a part of the stock and water sideways across the wire and create a heavy streak which freezes due to drainage of water before it can be leveled out again.

We are therefore brought to the conclusion that no slice can perform satisfactorily unless the distribution and control of stock and water flow in the head box is adequately handled, and that the slice itself needs flexibility and ease of adjustment, as well as the obvious requirements of stability under the pressure of the head to be carried.

In concluding our remarks on head boxes and slices, we should like to comment on the extremely great dilutions encountered in making paper with higher percentage contents of western fir pulp. Formerly it was considered that the maximum ratio of water to stock was encountered in machines making light weight soft tissues. More recent experience with the fir stock indicates that it will equal or exceed the tissue operations—in other words, that dilutions in making bag and wrapping grades with fir may be even greater than are expected when working with a sheet made from the more usual pulps and of perhaps one quarter the weight. The growing use of fir stock places real emphasis on good slice and head box design.

Primary Suction Couch

We should like next to mention the primary suction couch development. Because of the interruption in new installations or improvements occasioned by the war, there have not been opportunities to study the effects of this suction roll arrangement on a wide variety of machines. It is expected that the next few months will broaden our field of experience, however. As many of those present appreciate, the suction primary couch roll duplicates in most respects the main suction couch roll but it is installed at the position quite commonly occupied by the wire guide roll. Thus the run of the wire from the Fourdrinier flat boxes passes straight to the primary couch, and after passing over its suction area, slants down to the main couch roll at the conventional location.

The primary couch roll, therefore, assumes part of the work ordinarily done by the flat boxes and part of that done by the main couch. Since

there is no frictional drag as with flat boxes, a quite high vacuum is carried in the primary couch without the wire wear that would be encountered with higher vacuums in the flat boxes. The result is that higher water removal can be accomplished through the wire with an improvement in wire life, because the sheet is run wetter over the flat boxes and the vacuum carried there will ordinarily be moderate or low.

The most interesting feature of this new arrangement is, however, that it relieves the main couch of an unfavorable operating condition. In order to illustrate this action we must first consider that in conventional single suction couch installation, the water drawn from the sheet through the mesh of the wire by the vacuum in the roll is acted upon by centrifugal force and that this force tends to hold water, perhaps as a small slug, in each hole of the shell. The flow of air and the more finely dispersed water vapor passes on into the suction box inside the couch shell and thence out through the pipe and pump. However, a surprisingly large proportion of the water from the sheet, particularly at the higher machine speeds, seems to be held in the holes of the shell, with the inward pull of the vacuum pump balanced by the outward pull of centrifugal force. Now the sheet cannot be removed from the wire to the first press felt until the vacuum in the couch shell holes beneath it is broken. This occurs as the holes pass out of the vacuum area maintained by the couch roll suction box and at the instant the vacuum in the holes is broken, the sheet can be removed from the wire, but at this same instant the water in the holes is free to be thrown out by centrifugal force. Unless the sheet is stripped away under just the right conditions, the water tends to be thrown back onto the sheet, wetting the sheet and causing trouble at the draw to the first press. Depending upon the weight of sheet being run and the machine speed, the difficulty at the draw between couch and first press may be some crushing and marking trouble due to the high moisture content, or may be frequent breaks due to the sheet strength being insufficient to carry across the draw. You are all familiar with operating conditions in which a mere suspicion of a wet tail carrying past the flat boxes to the couch will immediately result in a couch break—this probably happens because unusually large slugs of water accumulate in the holes of

the couch and throw back into the sheet as it leaves the wire.

The primary couch differs from an ordinary couch arrangement in that the sheet leaves the vacuum area of the primary couch still supported by the Fourdrinier wire. The vacuum box in the primary couch roll is set so that the wire pulls away from the roll at the edge of the vacuum area and while the full effect of the vacuum is still acting to hold the water from throwing out. A saveall of ample proportions is fitted around the primary couch to catch the water thrown from its holes and the correct setting of the box in the roll can readily be established by watching this throw of water. From this it will be obvious that the primary couch arrangement is operated much like a suction press as to the setting of the suction box position—the amount of water thrown into the saveall is much greater, however.

With the primary couch handling the bulk of the water to be removed, the main suction couch apparently never receives enough to build up any slugs in its shell holes and for this reason the draw from the wire to the first press is no longer extremely critical. The vacuum action at the main couch probably starts with the sheet about as dry as it would finish on a conventional couch arrangement and results indicate this new two-couch combination sends a dryer sheet to the press as well as insuring much safer operation.

Other Developments

There is not sufficient time for a detailed discussion of other machine developments, but mention can be made of some. The growing use of compressed air as a controlling and operating medium is interesting. There are a number of adjustment positions where operation is very intermittent and where the moisture condition prevailing makes electrical equipment vulnerable to insulation failure. Air motors are used to advantage in such positions; for example, slice lift, press felt stretcher, Fourdrinier run-out and deckle-lift motors. Press roll nip pressures can be maintained very nicely by air pressure devices employing either cylinders or diaphragms. By devoting some attention to details the applied pressure can be very resilient to allow for accidental conditions, can be arranged so that front and back pressures can be readily adjusted at a control station conveniently located for the operator, and friction or binding can almost be eliminated.

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SEATTLE 1, WASHINGTON

An air operated press felt guide has been developed that has the advantage of giving a corrective action in proportion to the movement of the felt. As long as the felt runs normally in its correct position, there is no movement of guide parts and practically a zero air use; if the felt for any reason suddenly moves out of position, there is a correspondingly sudden shift of the guide roll to bring conditions back to normal again; if the felt starts to move slowly out of position, the guide makes a very gradual corrective move. The new guides seem to be ideally suited for the requirements of the higher speed machines.

Air operation of clutches in machine drives has added a new degree of flexibility and ease of control particularly important for high speed machines. The driving plate areas must be ample for good heat dissipation and long life, and this means that the torque transmitting capacity of the clutches would be sufficient to overload the driving belts if the starting engagement were too forceful. By presetting the air pressure control, engagement of the clutches is regulated to give a smooth, easy start, even if the operator is in a hurry.

As an example of developments

that have been brought about to meet the particular requirements of various kinds of paper, we should like to mention the types of reels that are available. Starting with the transfer type of drum or constant speed reel, because the drum reel seems to be fundamentally well suited to high speed operation, the development has been in two distinct directions. For sheets that can be wound in dense, solid reels both the starting and finishing positions are fitted with air cylinders having readily adjustable controls, and this type of reel can easily build sound rolls up to 84 inches in diameter. For softer sheets that would wrinkle or suffer other damage if wound too tightly, and these are the sheets formerly considered as requiring the old upright reel, the transfer drum reel has been differently modified. The finishing position arms are equipped with a special electric drive and mechanical parts for engaging a clutch bell on the reel spool. The procedure, then, begins with an empty reel spool in the starting position and, after starting the sheet on the spool, it is transferred promptly to the finishing position arms where the special drive is engaged, the spool taken out of contact with the drum, and

MANAGER REQUIRED FOR NEW PACIFIC COAST SULPHATE PULP MILL

An unusual opportunity is presented for a man with necessary technical experience to assume position of resident manager of this Company's newly opened Sulphate Pulp Mill at Port Alberni, British Columbia. Locale is a modern, growing community, in mild Pacific coast climate, well suited for family living. Liberal salary will be paid to a properly qualified man, who should be prepared to commence about August 1.

**Bloedel,
Stewart & Welch Ltd.**
VANCOUVER, B. C.

the reel built up using the center-wind drive. The control of this drive is such that the tension in the winding sheet can be automatically maintained at any desired degree.

It might be well to conclude these remarks with the observation that many improvements in machine speeds and efficiencies have been made during the last few years and that there is every indication this progress will continue. Whenever a real improvement in machine design has been made available the operators have been very quick to make good use of it and point the possibilities of further gains. As long as this cooperative effort continues, there will always be things to discuss at paper mill conventions.

WANTED IMMEDIATELY—Experienced kraft pulp mill tour foreman, chemist or chemical engineer and junior chemist for new modern bleached kraft pulp mill. In reply give experience, personal history and salary expected. Box 30, Pulp & Paper Industry, 71 Columbia St., Seattle 4, Wash.

EXCEPTIONAL OPPORTUNITY FOR TWO MEN OF SALES EXPERIENCE AND ABILITY WITH LEADING MANUFACTURER OF PULP AND PAPER MACHINERY—calls for college educated men, age 30 to 40, with knowledge of pulp and papermaking processes and equipment and proved selling ability, capable of assuming executive responsibility. One man needed for western territory, headquarters near Chicago, one for eastern territory, headquarters near Boston. Write, giving full details as to qualifications and experience. Box 34, Pulp & Paper Industry, 71 Columbia St., Seattle 4, Wash.

Donnacona Paper Co. Puts Filter In Production at Board Mill

Donnacona Paper Co. at Quebec has just put into production a new filter in the insulating board mill which has resulted in increasing output about 25%, according to President Robert P. Kernan. "This brings out daily production to about 250,000 feet a day," Mr. Kernan advises PULP & PAPER INDUSTRY. "We have also changed the drive on out No. 3-234" Walmsley newsprint machine from the old rope driven type to a modern G.E. drive.

"The new drive is in operation, but as yet we have not attempted to speed up the machine over 1200 feet. However, we hope to increase this speed considerably during the year.

"In the groundwood mill we just put into operation a new line of magazine grinders which we anticipate will produce about 75 to 80 tons of groundwood. This line, together with the two lines of magazines added a few years ago, will go a long way towards modernizing our groundwood mill."

Crown Z Gets National Forest Timber

Crown Zellerbach Corp. and the U. S. Forest Service have reached an agreement whereby the corporation has transferred title to 2400 acres of timber land, immediately north of Larch Mountain, Oregon, in exchange for cutting rights on Mt. Hood National Forest timber, situated at the south end of Bull Run drainage. Certain logging boundaries were set up for a drainage area for city of Portland water.

Mississippi Pollution Law To Be Evoked

Application of Mississippi's new law relating to discharge into streams will become effective when a qualified engineer has been retained by the Game and Fish Commission, according to R. M. Freeman, its director. Under the bill, the commission is authorized to establish treatment to be given plant effluent before dumped into streams.

New Rayonier Directors

Edward Bartsch, president of Rayonier Incorporated, announces that the following have been elected directors of that company:

William A. Parker, president of Incorporated Investors of Boston; Morton H. Fry, president of Overseas Securities Co., Inc., and Eugene Bashore, vice president of Blyth & Co., Inc., both of New York.

William F. Weber of New York, has been appointed assistant secretary.

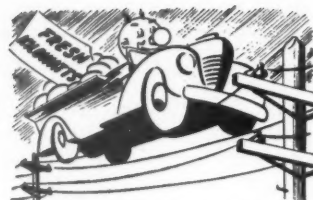
CONFIDENTIAL EMPLOYMENT SERVICE FOR PAPER AND PULP MILLS

WE INVITE CORRESPONDENCE WITH EMPLOYERS SEEKING EXECUTIVES AND EXECUTIVES SEEKING NEW POSITIONS.

CHARLES P. RAYMOND SERVICE, INC.

PAPER MILL DEPARTMENT
294 WASHINGTON STREET
BOSTON, MASS.

PULP & PAPER INDUSTRY



IT COSTS MONEY TO MOVE KILOWATTS

And, Puget Power has been keeping more kilowatts moving in the service of more people every year during the past decade. During the past ten years expenditures by Puget Power for new construction totaled more than \$26,500,000. In 1945 additions to utility plant were about \$3,000,000—mostly for expansion of transmission and distribution facilities. And, \$4,500,000 is budgeted for 1946 to back up our pledge of Better Service.

PUGET SOUND POWER & LIGHT CO.

FRANK McLAUGHLIN, President

Canadian Sumner Makes Slab Barker for New Pulp Mill

Canadian Sumner Iron Works, Vancouver, B. C., which has now virtually completed the transformation of its plant from that of a busy war industry to a full-swing peacetime production unit, is now engaged in building slab barkers for the new Bloedel, Stewart & Welch pulp mill at Port Alberni and Fraser River sawmills.

The company also has the contract to build a 175-inch chipper and hydraulic barker for the B. C. Pulp & Paper Co.'s mill at Woodfibre. The hydraulic barker will be similar in size and design to that now in operation at Hawley Pulp & Paper Co.

Slab barkers being installed in British Columbia will convert into usable pulp material that previously was regarded as waste.

The slabs are fed by rollers through a large inclosed compartment in which a battery of nozzles are conveniently located and through which water at high pressure is passed so that all bark is removed. Slabs are then fed into small sized chippers.

Maine Seaboard Installs Jones Jordans

In converting its facilities for the manufacture of book paper for its new owner, Time, Inc., the Maine Seaboard Paper Co. of Bucksport, Maine, has installed two Jones Majestic Refiner type jordans on one machine, and will equip the second machine with two more units during the summer.

These refiners are built by E. D. Jones & Sons Co., Pittsfield, Mass.

TRONA SALT CAKE

(SODIUM SULPHATE)

HAS SERVED THE SULPHATE PULP MILLS
FOR 12 YEARS

Dependable in Quality and in Delivery

AMERICAN POTASH & CHEMICAL CORPN.

609 So. Grand Avenue

Los Angeles 14, California

**HAMER PLUG VALVES Speed "Traffic"
through your lines BECAUSE...**

HAMER PLUG VALVES NEVER STICK!

Under the toughest service conditions—extremes of temperature, handling viscous, sticky fluids—Hamer Plug Valves always operate instantly, no matter how long the interval between operations. That's because the plug adjusting nut under the plug head gives positive turning under all conditions... an exclusive Hamer feature.



Hamer All-Steel, Flanged, Balanced Type Plug Valve. Bar operated. 600 lbs. Working Pressure; 1200 lbs. Test Pressure. Suitable for varied industrial services where a lubricated or non-lubricated valve is required.

HAMER OIL TOOL COMPANY • 2919 GARDENIA AVE. • LONG BEACH 7, CALIF.

Raymond J. Lee Is Lockport's General Manager

William H. Lee, president of Lockport Felt Co., Newfane, N. Y., announced after a directors' meeting April 25 that his son, Raymond J. Lee, had been elected to succeed him as general manager of the company.

Lester D. Carner, personnel director, was elected secretary, succeeding B. A. Audley, who became assistant to the president. Mr. Audley is also assistant treasurer.

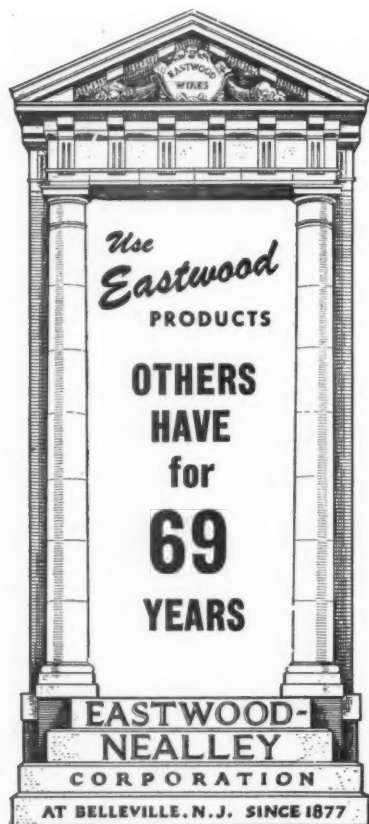
Heller & Merz Offers Movie for Meetings

Heller & Merz department of Calco Chemical Co. has produced a sound picture in color entitled "Portrait of an Industry" which deals with dyestuffs and runs about 35 minutes. This picture is available for industry meetings by application to representatives of Heller & Merz.

On the Pacific Coast, application may be made to W. C. Marshall, Pacific Coast Supply Co., Public Service Bldg., Portland, Ore. In the Middle West, application may be made to Jack Wandtke in the Chicago office of Heller & Merz.

Back at St. Marys

Lt. Col. Geo. W. Brumley has returned to the post of chief chemist of St. Marys Kraft Corp., St. Marys, Ga., after service in the armed forces. Victor H. Johnson, who had been serving as chief chemist, became assistant pulp mill superintendent of the Central Paper Co., Muskegon, Mich.



Green Bay (Continued)

ing were distributed by R. M. Radsch of Appleton Machine Co.

Others at the speakers' table were R. A. Nugent of Nekoosa-Edwards Paper Co., first vice chairman; S. E. Ekman of Rhineland Paper Co., 2nd vice chairman; Frank X. Kreiling, of Thilmany Pulp and Paper Co., secretary-treasurer; E. C. Jacobi, Sandy Hill Iron & Brass Works; Ed Den Dooven, Hoberg Paper Mills, Inc., head of the program committee, and H. G. Wintgens, Hoberg Paper Mills.

Green Bay Attendance

Attending the meeting were: Richard Ahrens, Impco, Nashua, N. H.; A. W. Anderson, W. E. Erickson, A. E. Golen, Harry R. Jensen, Warren Johnson, Ed Krowley, Hugo Schlenk, Jr., Gunnar Johnson, Northwest Paper Co.; Ed P. Arpin, F. A. Leavens & Co., Neenah, Wis.; M. J. Aughter, Ed Den Dooven, Clyde Faulkender, Jack Francois, Winfred Giese, George Maloney, J. B. Roskams, Hoberg Paper Mills; R. W. Bauman, Johns-Manville Co., Chicago; B. M. Baxter, Polleys & Baxter Co., Middletown, O.; Murray Bennett, Stebbins Engineering Co., Watertown, N. Y.; Daniel V. Bergman, PULP & PAPER INDUSTRY, Chicago.

Paul Boronow, Harold Norseen, Valley Iron Works; F. C. Boyce, Wisconsin Paper Products Co., Milwaukee; J. R. Bush, Pittsburgh Plate Glass Co., Pittsburgh, Pa.; Charles Cain, Hooker Electrochemical Co., Niagara Falls; Harold Chew, Manhattan Rubber Co., Neenah, Wis.; Warren Chilson, H. J. Desotell, H. W. Gochbauer, Gus Klaus, J. A. Malcove, Harry Niles, R. G. Smith, Northern Paper Mills; Neil H. Christen, R. A. Nugent, Charles H. Reese, Nekoosa-Edwards Paper Co.

James D. Clark, National Aniline Div., Allied Chemical; Walter Cloud, Jr., Walter Cloud, Sr., U. S. Paper Mills, De Pere, Wis.; G. H. Corbin and F. W. Niennow, Penn. Salt Co.; William Damp, R. R. Kelly, Ted Deininger, Larry Pfieger, L. S. Sabatke, Marathon Corp.; Linton Edgerly, Malcolm Wright, St. Regis Paper Co., Sartell, Minn.; S. E. Ekman, F. W. Johnson, Rhineland Paper Co.; Paul Foster, P. A. Talbot, Williams-Gray Co.; Herb Gardener, Stein Hall Mfg. Co., Tom Gillespie, Lockport Felt Co., Chicago; H. H. Gottsleben, Geigy Co., Appleton.

Lloyd Greiner, Benlo Chemicals, Milwaukee; J. W. Griner, Standard Oil Co., Green Bay; Robert M. Guie, Philadelphia Felt Co.; R. J. Hanson, Badger Ball & Roller Bearing Co., Milwaukee; Otto Hartman, Cliff Maltebey, Wolfe River Paper Co., Shawano, Wis.; C. V. Mars, Ansul Chemical Co., Marinette, Wis.; Otto Hassel, Wm. Thiele, H. B. Richmond, Consolidated Water Power and Paper Co.; E. C. Jacobi, Sandy Hill Iron & Brass Works, Hudson Falls, N. Y.; Mrs. E. C. Jacobi, Loding Engineering Corp., Western, Mass.; Walter Johnson, Falls Pulp and Paper Co.; Oconto Falls, Wis.

Peter Jones, Melvin Killian, Earl Schuler, L. J. Smith, Mrs. Vera Smith, R. Vogt, Combined Locks Paper Co.; W. S. Kennedy, Bristol Co., Waterbury, Conn.; E. G. Kominek, Fred O. Sullivan, In-

filco, Inc., Chicago; H. A. Koster, Westinghouse, Chicago; Chas. R. Seaborne, Frank X. Kreiling, P. W. West, Thilmany Pulp and Paper Co.; G. T. Latham, Du Pont Co., Chicago; J. R. Lauterbach, A. I. Sippola; Lloyd J. Lynn, Porrier Control Co., Kalamazoo; H. D. MacDonald, Ohio Knife Co., Chicago; P. J. Massey, H. P. Smith Co.

H. G. Mayshaw, Bird Machine Co.; W. M. McGraw, General Chemical Co., Milwaukee; Frank R. Metzger, Provincial Paper, Ltd., Port Arthur, Ont.; W. H. Monsson, Hooker Electrochemical; C. E. Mueller, Bulkley-Dunton Pulp Co.; G. E. O'Brien, Stanley Works, Chicago; George Ormsbee, Toledo Scale Co., Milwaukee; A. W. Plier, D. J. Murray Mfg. Co.; Myles Reif, Blandin Paper Co., Grand Rapids, Minn.; R. M. Radsch, C. E. Schaefer, W. A. Zonner, Appleton Machine Co.; Oscar Rosche, Material & Equipment Engineers, Milwaukee.

W. H. Schlafge, T. R. Stein, Minnesota & Ontario Paper Co.; Milton A. Schreiner, Foxboro Co., Chicago; J. A. Smith, Menasha Engineering Co., Menasha, Wis.; Don Stark, W. R. Turner, Shartell Bros. Machine Co., Middletown; R. W. Van Kirk, Penick & Ford, Cedar Rapids, Iowa; W. S. Taylor, Amer. Cyanamid & Chemical Co., Kalamazoo; R. Tourangeau, Wausau Paper Mills; William Wallin, Dicalite Co.; W. E. Waymire, Westinghouse Corp., Appleton; N. W. Wilmot, Vernon Woodside, Mathieson Alkali, Chicago; S. S. Wilson, Warren Pump Co., and R. J. Yaeger, Ansul Chemical Co., Marinette.

W. W. Weed, President Of Huyck & Sons, Passes

Woolsey W. Weed, president of F. C. Huyck & Sons, Kenwood Mills, Albany, N. Y., died at Albany Memorial Hospital, May 12, after a short illness.

Mr. Weed was born at Potsdam, N. Y. He attended Syracuse University. In 1917 he joined F. C. Huyck & Sons, manufacturers of papermakers' felts, and had been connected with the company continuously during the past 29 years. For 17 years, he was managing director of Kenwood Mills, Ltd., Arnprior, Ontario. On the death of Frank C. Huyck, son of the founder of Kenwood Mills, in 1938, Mr. Weed came to Albany as president.

Surviving are his wife and son William.

Winston Scott Named Shelton Asst. Manager

Erward Bartsch, president of Rayonier Incorporated, has announced appointment of Winston Scott as assistant resident manager of the company's Shelton, Wash., mill, reopened last year. George Cropper is the resident manager.

Mr. Scott was promoted from the position of chief chemist, a position he had held since 1936.

Stewart of C. C. Moore Dies in San Francisco

John G. Stewart, vice-president and general manager, C. C. Moore & Co., San Francisco, died last month. He was 62.

Mr. Stewart had served 23 years with the Moore company, 14 of them as manager of the Seattle office. He had been vice president and general manager for nine years. He was a graduate of Ohio State University.

National Container Corp. Noses Out Bemis In Purchase of Tomahawk Kraft Paper Co.

National Container Corp., which already owns a primary mill in Jacksonville, Fla., has acquired a controlling interest in the Tomahawk Kraft Paper Co., of Tomahawk, Wis.

Previously, it had been announced by Bemis Bro. Bag Co. in St. Louis, that the bag manufacturing firm had made an offer of \$23 a share to stockholders, many of whom are Tomahawk employees. This was for 51% of holdings, but at this rate total holdings would have been valued at \$3,719,675.

At Jacksonville, National Container has capacity for 315 tons a day of sulfate pulp and 300 tons of kraft liner and corrugating. At Tomahawk, it would have additional capacity for 100 tons of sulfate pulp and 100 tons of paper.

The Bemis offer was published in a Wausau, Wis., advertisement because of the wide, semi-public ownership in Tomahawk. National had previously offered \$21 a share.

Tomahawk has a modern pulp mill, owns an outstanding 73,000-acre forestation project and also owns its own water power. S. B. Bugge is president and general manager, and D. Clark Everest is vice president. C. E. Stoke is general superintendent.

National Container's home office is in Long Island City, N. Y. Samuel Kipnis is president.

Supreme Court Upholds Waste Paper Firm vs. OPA

The Supreme Court of the U. S. has circumscribed administrative powers of OPA by a decision in a case brought by Thomas Paper Stock Co. of Chicago, Ill. The decision held that a firm, or individual, charged with violation of price control laws, may be entitled to retroactive relief if the laws have been amended since the violation allegedly took place.

Thomas Paper Stock Co. was charged with selling waste paper at higher than ceiling prices. The company contended that its sales were regulated by the so-called OPA law Taft amendment, enacted in July, 1943, compelled OPA to examine various classes of commodities to see whether proper specifications for maximum prices had been set.

It was not until Sept., 1943, that OPA reviewed the situation with respect to waste paper and the company contended its operation between July and September could not be considered in violation of the law.

CPA and OPA Changes; Groundwood Price Upped

John Franzen, of Hamermill Paper Co., has become the pulp and paper industry executive for the Civilian Price Administration, the lightweight successor of WPB, and Robert F. Nelson, former president of Glassine Paper Co., has become this industry's new price executive in OPA.

Mr. Franzen succeeded Charles J. Dynes, who ended long service in Washington to return to Hollingsworth & Whitney Co.

OPA has allowed an \$8 per ton increase in groundwood prices. It has removed ceilings on a few small special paper items, as doilies, draperies, luminous tape, etc.

Swedes Cut British Pulp

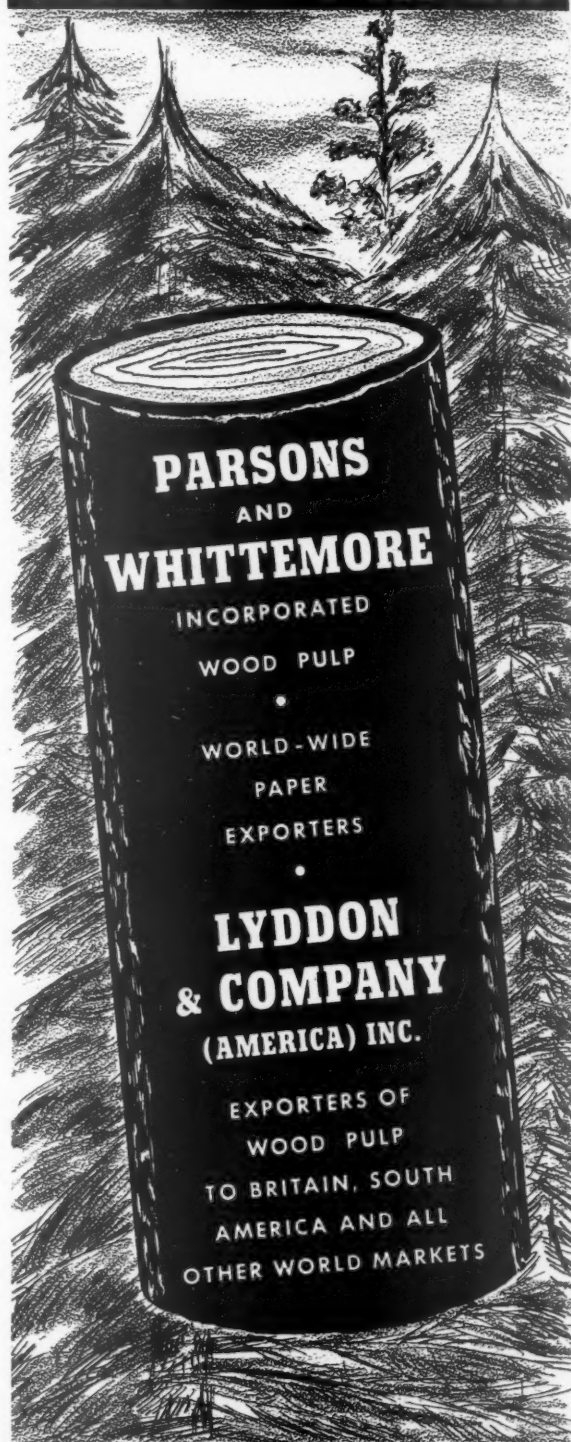
Anglo-Swedish trade talks recently are believed apparently to have resulted in reduction of export of Swedish paper pulp to Britain during the period ending Apr. 30, 1947. Nor will Sweden get as much coal from England as it had wished.

Billeruds has started up a new paper machine at Gruvön, Sweden.

Harold Murdock Joins St. Louis Firm

Harold R. Murdock, formerly with Champion Paper & Fibre Co. for 18 years, has been retained by Millinckrodt Chemical Works, St. Louis, to assist in technical promotion of a packaged form of pyridyl mercuric acetate for slime control in paper mills.

PULP AND PAPER



10 EAST 40TH STREET
NEW YORK CITY



**~EQUIPMENT~
RAW MATERIALS**

*For Pulp
and Paper
Mills* 

**MACHINE CLOTHING
~SUPPLIES~**

*Pacific Coast
Supply Company*

SAN FRANCISCO • PORTLAND



"Thar she blows!"

A WHALE

can hold his breath for a considerable period of time but he must occasionally come to the surface and "blow off."

When the lookout in the crow's nest sees those bubbles the crew knows they have a job to do—and to do quickly.

WHEN A MACHINE TENDER

sees the sheet begin "blowing" he knows that he has a job cut out for him. The wet felt must not only get rid of the water but it must also breathe. Unless the air can circulate freely through the mesh of the felt it must "blow" against the sheet, leaving wet splotches. These result in frequent breaks, poor formation, curtailed production and excessive consumption of steam at the drier rolls.

HAMILTON FELTS

do not blow. They operate like the breathing apparatus of the whale, expelling water and permitting air to circulate uniformly across the full width of the paper machine.



- From the thinnest tissue to the heaviest board there is a Hamilton Felt that will do our work better, faster and at lower cost.

SHULER & BENNINGHOFEN
HAMILTON, OHIO

Miami Woolen Mills, Established 1858

Hamilton
Felts